ESTABLISHED IN 1872

PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. XCV, No. 23 Thursday, December 8, 1932

To Ask Countervailing Duty On Foreign Pulp

Growing Competition from Countries With Cheap Currencies Causes Paper and Pulp Manufacturers of Wisconsin and Michigan to Organize for Relief—J. M. Conway, President of the Hoberg Paper & Fibre Co., Who Called the Conference, Says Remedial Measures Must Be Taken at Once If Grave Consequences Are to Be Avoided

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., December 5, 1932—Continued decline of the demand for domestic wood pulp as against growing imports from Esthonia, Finland, Sweden and other European countries at a differential of $6 to $10 lower due to currency values alone has created a serious situation which occasioned the calling of a conference last week at Green Bay, Wis., by John M. Conway, president and general manager of the Hoberg Paper and Fibre Company. He invited 25 executives of mills from Wisconsin and Michigan. Twenty-two attended, the others being absent only for unavoidable reasons. An entire day was devoted to a consideration of the situation.

Organization to Appeal to Congress

Final action of the meeting was the creation of an organization to interest allied industries in joining them in appealing to congress to enact a countervailing duty on foreign pulp wood to offset the depreciated currency of foreign countries. The committee appointed to perfect the organization is: D. C. Everest, Marathon Paper Mills Company, Rothschild, Wis.; M. R. Jeffries, timber operator, Rhinelander, Wis.; E. P. Smith, Central West Coal Company, Menominee, Mich.; W. A. Munro, Munising Paper Company, Munising, Mich.; Guy Waldo, Flambeau Paper Company, Park Falls, Wis.; W. L. Edmonds, Wausau Paper Mills Company, Wausau, Wis., and Folke Becker, Rhinelander Paper Company, Rhinelander, Wis. These men are to report a plan to the entire pulp industry within a short time.

Wisconsin's wood pulp industry was pictured at the meeting as a $48,000,000 investment threatened with annihilation if present conditions continued. In normal years Wisconsin's 43 mills employed more than 4,000 men and paid them wages in excess of $5,000,000. The industry spends about $25,000,000 a year for materials, power and supplies.

Mr. Conway Says Conditions Demand Quick Remedy

In his address to the conference, Mr. Conway said: "If the paper industry and a number of other industries dependent upon or closely associated with the paper industry are to be saved, there must be a duty or surtax on foreign products to offset the depreciated currency of those countries. If the pulp mills go out of business (and they certainly must close down if this condition is not quickly changed), it will not be many years before we shall hear the death knell of the entire paper industry in Wisconsin."

Manufacturers did not argue for a straight tariff on pulp. They desire something similar to what the Republic of France proclaimed to protect her industries against the deflated money of countries with which she is doing business. They want a surtax or a countervailing duty in such an amount as will bring the depreciated foreign currency up to the level of this country's currency when it engages in trade with this country. They feel they can then go on competing with European importers, despite the low cost labor, transportation and other elements in those countries still affecting the price and making it lower than the American.

One reason was cited why the public at large is not more generally familiar with the crisis at hand. The large daily newspapers and magazines, it was stated, have suppressed the facts because of their own participation in lower prices for paper made from the cheap foreign pulp. It is believed they will change their attitude, however, when they realize the gravity of the situation and the effect it eventually will have on their own patronage.

Heavy Demand for Holiday Wrappings

A seasonal upturn of more than the usual volume has been experienced by the Tuttle Press Company, Appleton, Wis. The demand especially for Christmas wrapping papers and other similar store supplies has been unprecedented. The situation is one of being swamped with orders almost beyond the plant's ability to fill them at this time.

To Reforest Seventeen Thousand Acres

Seventeen thousand acres of land in Wood county will be devoted to reforestation ostensibly to help insure future pulp wood supply for the Nekoosa-Edwards Paper Company, Nekoosa, Wis., and the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., according to action taken by the Wood county board of supervisors at its November meeting. Tracts ideally situated for tree

(Continued on page 52)

Power Show Depicts Engineering Advancement

Approximately Three Hundred Exhibitors Display Equipment Pertaining to Power Production At Tenth National Exposition of Power and Mechanical Engineering, Held At Grand Central Palace—Various Engineering Societies Convene

With such wonders as a machine of perpetual motion, which takes its motor power directly from the atmosphere, and many other phenomena of the world of science, the Tenth National Exposition of Power and Mechanical Engineering opened on Monday afternoon at the Grand Central Palace, New York.

All manner of equipment pertaining to power production are displayed by the three hundred exhibitors—from enormous machines intended for heavy work to the most delicate of precision instruments. More than 25,000 industrial plants throughout the world now use the devices and equipment shown. For a person to visit these factories and see this equipment in operation would require considerable time.

The marvellous photo-electric cell is shown performing some new feats, such as indicating the amount of illumination in a building down to one ten-thousandth of candle power. Progress made in the abatement of smoke nuisance and its importance in relation to public health is graphically demonstrated. A thermo-electric device accurately indicates by means of a writing finger on a chart the amount of smoke in the air. Dozens of other phenomena will interest the visitor.

The committee in charge express the opinion that the exposition will prove a stimulus to business, both directly and indirectly, in view of the fact that probably a larger number of equipment purchasers, engineers, plant superintendents, etc., than ever before will attend during the week. They are arriving from practically every state and also from Canada, Mexico and parts of Europe. Incidentally, a number of orders have already been entered for new equipment.

As has been the custom in former years, the exposition is being held coincident with the conventions of the American Society of Mechanical Engineers and other bodies at the Engineering Societies Building. Sessions are being held daily.

Plans of the National Committee on Modernization of Industrial Plant Facilities are being discussed and explained. Through this committee an extensive drive to rehabilitate industrial equipment throughout industry will be made.

A forum will be held on December 10 for discussing the trend of the times in handling power and various engineering problems. More than 750 upper classmen from Cornell, Princeton, New York University and other universities will attend this forum, which will be addressed by nationally known engineers and industrialists.

Limitation of space prevents individual mention of all the various exhibits, but the following is a record of some of the displays which are of particular interest to the paper industry:

Bausch & Lomb Optical Co.

Scientific instruments and apparatus are featured at the booth of the Bausch & Lomb Optical Company, of Rochester, N. Y. The new B & L Micro-Projector gives a means of quick, constant and accurate control of the beating process. One man or a group can see in the microscopic enlargement of the sample the exact distribution, length and amount of "brooming" of the fibers.

Bundy Steam Trap Co.

Products of the Bundy Steam Trap Company, of Nashua, New Hampshire, are arousing particular attention at the exposition. Condensation from exhaust or low-pressure systems may be picked up by a Bundy Three-Valve Pumping Trap and discharged to a desired point. This system is adaptable for handling water of condensation from coils or condensing service located at great distances from the boiler room, easily overcoming ordinary elevations. Traps in practical service are forcing water 2,000 feet and more under this application.

Carborundum Co.

One of the largest spaces at the Show is occupied by the Carborundum Company, of Perth Amboy, N. J., and Niagara Falls, N. Y. Here is displayed a wide range of refractory products manufactured by this organization. Of special interest to the paper industry are the Aloxite brands of brick and tile, and cements. The Aloxite Pulp Grinding Wheel is largely used in the mills and is destined to increase the production of high quality pulp at lowered grinding costs.

General Electric Co.

As usual, the display of the General Electric Company, of Schenectady, N. Y., is one of the most instructive and important features of the Exposition. At the large booth of the company are shown Gear Motors and Control Equipment, Compressors, Improved Arc Welding Equipment and Welding Electrodes, a Noise Meter and a display cabinet of Heating Units. The company demonstrates the newest development in commercial lighting, viz., the combination of mercury vapor lamps and incandescent lamps in one fixture. The combination gives an artificial illumination which is said to be more nearly equal to daylight than anything yet produced in the field of illumination. The company is also showing an electrically controlled air-blowing equipment, designed by H. V. Crawford, to supply a constant weight of air to iron foundry cupolas, irrespective of atmospheric conditions or the resistance of the furnace, thereby doing away with the traditional rule-of-thumb control by veteran foundry men who judged by the color of flames or sparks when it was time to shut off the air. "This apparatus puts the metallurgist in control of the melt now," declares Mr. Crawford. "You just set the blower for the calculated weight of air required and go away and do something else. It will shut itself off when it is through."

Mason Regulator Co.

Included in the new equipment displayed by the Mason Regulator Company, of Boston, Mass., is the Mason Compensated Boiler Control Instrument, which is in operation, and is attracting great attention of visitors to the Show. New precision in pressure control is now afforded by Mason Pressure Regulation and greater profits by increasing plant efficiencies are assured. Mason Precision

Instruments are so flexible that they may be instantly synchronized to the speed of any process by the average plant operator.

Merrick Scale Mfg. Co.

The Merrick Manufacturing Company, of Passaic, N. J., is exhibiting the Merrick Conveyor Weightometer, which is shown in operation. The Merrick Conveyor Weightometer is an ingenious device, which will weigh within a guaranteed accuracy of 99 per cent any material passing over a conveyor upon which it is installed, doing it without additional handling, expensive labor, or loss of time. The scale is used by hundreds of power stations and industrial plants all over the world and is designed for use on any style or size, horizontal or inclined belt or pan conveyor. No weighman or attendant is required and the weights do not have to be taken by hand. Consequently all chances of error due to the human element are removed. No motor or generator or other outside attachments are necessary. The scale is shipped as a complete unit and to put it in operation all that is required is to install it over the conveyor upon simple support of either angle iron or timber, connect up to a sprocket and the scale does the rest. Weightometers are used for weighing all classes of conveyor handled products both in the raw or finished state. A few of the many materials handled successfully are, coal, coke, stone, gravel, sand, zinc ore, iron ore, lead ore, gold ore, silver ore, copper ore concentrates, phosphate rock, phosphate pebbles, wood chips, sulphite pulp slabs, fish and fish products, cement rock, cement clinker, finished cement.

SKF Industries, Inc.

A full range of SKF Ball and Roller Bearings and SKF Pillow Blocks from the smallest to the largest, are the main feature of attraction at the booth of the SKF Industries, Inc., of New York. SKF gives a three-fold service—complete units for lineshafting, new machine appliances and the rapidly growing field of replacement. Newer methods, faster speeds and the call for greater production have shown old-type bearings unable to met the demands of a new day. Obsolescence and costly failures point the way to anti-friction bearings. SKF Units—bearings and housings—are the logical answer in modernizing machinery. They can be easily applied and instantly bring the benefits of reduced friction, easier running and lower maintenance, fully meeting the newer tempo of speed with dependability.

Taylor Instrument Co's.

Dial Thermometers, Dial Pressure Gages, and a wide range of Recorders are effectedly displayed at the attractive booth of the Taylor Instrument Companies, of Rochester, N. Y. There are three distinct types of Tycos Dial Thermometers, each being adapted to definite applications, classified according to working conditions, working temperature ranges, etc. The power units used are made of the best materials obtainable and can be quickly and easily changed by the user, when necessary. Tycos Dial Pressure Gages meet an ever-growing demand for a line of pressure gages that can be relied upon to give accurate reading, and to continue to do so indefinitely. The new Taylor Recorder possesses exclusive mechanical features and is appreciated by the most exacting power plant engineers.

Timken Roller Bearing Co.

Timken Tapered Roller Bearings are ably demonstrated at the booth of the Timken Roller Bearing Company, of Canton, Ohio. In the Timken Bearing, full advantage is taken of the principle of reducing unit stresses without sacrificing friction-reducing qualities. The design of the Timken Bearing permits the distribution of unit pressures over the full length of the roller. Naturally, with an initial distribution of unit pressures over a line of contact there is minimum distortion under load. Translated into terms of bearing life and service, the less distortion, the greater the precision, the greater the rigidity, the less wear and consequently the longer the life of the bearing and the machine parts which it supports.

Reforestation In New York

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., December 5, 1932.—While the reforestation program of the state was started several years ago it was not until 1931 that the activities were extended in order to reach a goal of 1,000,000 acres in abandoned land to be planted over a period of years. Files of the Conservation Department show that 33,000 acres have been planted throughout the state since 1929 and plantings amounted to 22,500,000 trees during last spring alone. The program mapped out called for the purchase of 100,000 acres during 1932 and 93,000 had been acquired by September 1. It was announced this week that a portion of the newly acquired land is adapted for the planting of new trees and it is the intention also of the state to develop all standing trees on land purchased.

Approximately 25,000 acres of land have been purchased or is under contract to the state in Oswego, Lewis and Jefferson counties for reforestation purposes and inspection of available sites has been made by state foresters in recent weeks. Land taken over by the state since early spring amounted to about 16,000 acres in Lewis county while the total amount acquired in Jefferson was 3,000 acres. In Oswego county it is estimated that the state has already taken claim to 5,500 acres with more to be purchased as a part of the enlarged reforestation program.

Wheeler Paper Co. Makes Big Shipment

Trucks today began transferring 24,000 pounds of Albany-made tissue and towels to the Port of Albany for shipment to Pacific Coast distributors, says the *Evening News* of Albany, N. Y. It is one of the largest single paper-products cargoes out of the port.

The consignment was manufactured in the Tivoli Street plant of the Wheeler Paper Corporation, of which Thomas B. Wheeler is president. Over 700 cases of tissue and towels are in the shipment.

The boxes are being stored in a warehouse at the Port until Saturday when they will be hoisted aboard the Quaker Line freighter, Jefferson Myers, which sails the same day. In two weeks these Wheeler Paper Corporation products will be on sale in numerous stores of the Pacific Coast and available in public buildings there.

"I don't see anything unusual in this," said Mr. Wheeler. "We have been gradually extending our sales area westward. This shipment, our first by water to the West coast, signifies that our Albany product is firmly intrenched there. Our plant is operating with a complete personnel and so far as we are concerned business has been good." He said the present shipment will be followed by others.

Swedish News Print Production

WASHINGTON, D. C., December 7. 1932.—The Swedish newsprint mills report an output of 16,568 metric tons during the month of September, bringing the total for the first 9 months of the current year up to 177,409 tons as compared with 166,930 tons during the corresponding nine months of last year and 184,689 tons during the nine months of 1930.

Chicago Paper Market Conditions Uneventful

Fine Paper Situation Little Changed, With Spottiness Generally Prevailing—Kraft Wrapping Paper Division Slightly Weaker—News Print Paper Sentiment Gradually Improving—Box Board Section Exhibits Fairly Strong Undertone

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., December 5, 1932—An uneventful paper market, broken in monotony by a reported increase in activity in certain grades of old paper based on improvement in the box board situation, is reported for Chicago during the past week. Dullness that is expected to hang on until some of the uncertainty concerning the business picture is eliminated, is prevalent in most lines. The kraft market has reportedly gone slightly weaker during the past ten days and reports indicate a low basis of activity here even though this should be one of the best seasons of the year. Book and cover papers are said to be practically unchanged, with book, however, reported at a near new low for activity.

Fine papers are little changed with some spottiness prevailing as an indication of irregular and slow improvement throughout the country as a whole. The box board industry, still holding fairly well, is reported as rather favorable toward the near future. Ground woods are dull. The news print market has improved in sentiment, according to reports, and some commentators indicate that a slight increase in demand for news print is in the offing. As indicated above, old papers, particularly old folded news and mixed papers, have had a bit better run for their money. Paper representatives here are taking an active part in campaigns to reduce taxes, relieve unemployment and, in general, get the business wheels oiled for more activity.

Support for Paper Palace

The Wheelright plan for parading the practical uses of paper before millions of visitors to Chicago's 1933 Century of Progress Exposition received additional stimulus and support at a meeting in Chicago on November 29, when a group of Chicago jobbers and manufacturers representatives met on the exposition Grounds and decided to form a temporary organization known as the Paper Foundation, to finance and instigate preparatory plans to sell the Paper Exhibit to the industry.

At the same time, a member of the Rosenwald Museum executive forces, meeting with the newly created Foundation, assured the paper industry that the proper exhibit at the Century of Progress would gladly be transferred almost entirely to a place of permanency in the great Rosenwald Museum on Chicago's South Side. The Museum has already made an exhaustive research into the uses of paper and not only offers to provide permanency to the Century of Progress exhibit but also is willing to permit the industry to make use of its early investigations in preparing the Paper Palace along the lake front.

The plan to make the world paper conscious was further discussed at the November 29 meeting with William Bond Wheelright again outlining his original plan for a building constructed entirely of paper. Prior to 9 a.m. in the morning Mr. Wheelright said that he had, by watching each item, counted twenty different times when he had made use of various grades of paper—the newspaper, cigarettes, paper matches, telephone book, letters, announcements, etc.

The Chicago paper trade seems determined to put over the paper exposition in the firm belief that it will not only be interesting and educational but it will actually increase paper consumption. The Paper Foundation, with Phil Howard, of the *American Paper Merchant* serving as executive secretary, will utilize plans of the proposed building, maps and figures to convince the rest of the paper world that it needs the exhibit as the seventh ranking industry in this country. A small amount of money, reported at around $2,000, will be raised for this preparatory and promotional work. It is estimated that the Paper Palace would cost around $36,000, with the amount probably less than that if manufacturers take advantage of the advertising opportunities offered to donate at least a part of the paper to be used in construction and furnishings. This would leave $14,000 of the estimated $50,000 to pay for experienced attendants and supervisors who would undertake the task of explaining the paper building and its furnishings and who would, in fact, be actually selling paper consumption to an estimated 18,000,000 American citizens.

At the meeting on November 29, representatives of five fine paper houses, of three coarse paper houses, and a number of manufacturers' representatives, met with Mr. Defoe of the Century of Progress staff and the representatives of the Rosenwald Industrial Museum. The fine paper group included Noble Gillette, Chicago Paper Company; Mr. Abell of the Butler organization, who is also president of the Western Paper Association; Forrest Hopkins, of the Paper Mills Company; Mr. Carpenter, of the Swigart Paper Company, and a representative of the Whitaker Paper Company; Walter Schulman, president of the Chicago Paper Association; Leo S. Altholz, Inlander-Steindler Company and D. F. Peck, Hanchett Paper Company, represented the coarse paper group. Lee Donovan, Fletcher Paper Company and W. B. Wheelright were also present.

The Western Paper Association, meeting in Chicago on December 2, devoted a large part of their meeting to a discussion of the proposed exhibit.

The members of the Paper Foundation were reported to have expressed the opinion that if the entire industry was properly informed and advised of the low cost per company or individual if the proper interest could be created, there would be little question but that the Paper Palace would be an established fact and the paper industry given its proper important position during the Century of Progress Exposition.

Browder Heads Paperboard Association

There seems to be a genuine feeling of satisfaction in Chicago paper board circles over the election of George R. Browder as president of the Paperboard Industries Association. Mr. Browder, elected at the recent annual meeting of the association in New York City, has been connected with the industry for fifteen years, having been general manager of the association since 1925, with headquarters here in Chicago at 608 South Dearborn street. The vice president of the paper board group, Wesley M. Dixon, of the Container Corporation of America, is also a Chicagoan.

Reports circulating back to Chicago by way of the many Chicago executives in attendance indicate that the regrouping of the Paperboard Industries Association to permit the inclusion of other groups including the entire container

group and possibly later the manufacturers of corrugating materials, is going to be one of the important tasks of the association in the near future. The continued growth of the association is taken as a heartening sign that manufacturers are beginning to appreciate the fact that cooperation and collaboration in all general problems is necessary to insure permanent progress, especially during the present period.

Paper Association to Meet

The Chicago Paper Association will hold its first meeting following the election of a new slate of officers, on Tuesday evening, December 13, at the Bismarck Hotel. It is hoped, according to reports, that the association may, at that time or shortly after, initiate the system of devoting one meeting to industrial matters, under the direction of an industrial vice president and one meeting to the retail group, under the direction of the retail vice president.

Power Show Planned

The 1933 Chicago Power Show, always of interest to paper manufacturers, will be held during the last week of June, 1933, at the Century of Progress and during the Century of Progress Exposition. A joint committee of engineering societies has been formed in Chicago to stimulate interest in this "Engineering Week" and to arrange for a program which will include an "Engineers' Day." Paper mill executives interested in power machinery devoted to paper mill use, will be interested in this concentration of interest in power affairs.

New Wheelwright Headquarters

The George W. Wheelwright Paper Company, of Leominster, Mass., announces that its Chicago office is now located at 701 North Michigan Avenue, Room 1111. The telephone number is Superior 2520. William Bond Wheelwright is the representative in charge of the office.

News of the Trade

Eastern Manufacturing Company distributors are now utilizing, to the fullest extent, a new display cabinet which first made its appearance here in Chicago last week. The new cabinet, of excellent construction, contains 27 compartments for direct mail and educational material. Ten are large compartments, while the other seventeen conform to various standard sizes of direct mail pieces. The cabinet contains literature describing a wide range of Eastern products.

Dwight Brothers Paper Company is providing its customers with a neat desk thermometer, attractively finished and evidently, if demand is any criterion, a much needed article. The only advertising on the thermometer appears on the reverse side of the mercury container.

Chicago paper merchants, manufacturers representatives, and jobbers who are taking an active part in Chicago's campaign to raise $7,500,000 to take care of the peak load of unemployment relief, report that they are at about the half way mark, with prospects of winding up the relief job by Christmas time. The paper and allied industries quota is around $85,000, with Noble Gillette having charge of the raising of the fund.

Latex Fiber Industries Addition

BEAVER FALLS, N. Y., December 3, 1932—The Latex Fiber Industries has started construction of a new addition on the north side of its plant which will be used for warehouse purposes. The building is being erected large enough to furnish sufficient space for the storage of supplies and raw materials used by the concern. It is expected that the structure will be completed within several weeks.

File Petition Against Gardner-Richardson

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, December 5, 1932—Claiming a total of $457,895 for their common and preferred stock holdings in the Gardner-Richardson Company, a petition was filed in common pleas court the past week by Tom Harvey, Harold A. Harvey, and George E. Harvey, all of Middletown, who were minority stockholders in the Gardner and Harvey Company, paper mill, Middletown.

The Harveys were granted a temporary injunction by Judge E. J. Kautz, requiring $1,000 bond, so as to prevent selling, transfer or mortgaging of assets pending final adjudication of their claims.

Hearing on the injunction was fixed for December 10.

The petition, filed through E. H. and W. B. Turner, Dayton, refers to a purchase of certain assets of the Richardson Co., Lockland, last summer, and a change in the name of the Middletown concern to the Gardner-Richardson Co.

At a stockholders' meeting last June 17 directors were authorized to make the purchase, change the name of the firm, and increase the outstanding common stock issue from 20,000 shares to 40,000 shares of common stock A and 5,000 shares of common stock B, also to issue $2,500,000 in bonds with the Central Trust Company, Cincinnati, also named defendant, as trustee.

At the stockholders' meeting 19,226 shares of common stock in the old company were represented and the deal was declared passed by two-thirds vote.

The increase in the capital setup has "substantially changed the rights of the plantiffs," the petition alleges.

On June 17 Tom Harvey protested and dissented, and fixed the value of his stock at $417,028.04 which he demanded of the company for his holdings. The following day Harold did likewise and asked $22,185.35 and George protested asking about $18,682.

On June 25, Colin Gardner, vice-president of the company wrote and refused the amount demanded but offered $50 a share for preferred stock holdings of Tom Harvey, and $25 a share for the common stock. By these figures the holdings of the three plaintiffs would be valued at $59,825.

The petition asks that appraisers be named to fix the value of the securities in question as of June 17, the date the deal was approved by the stockholders.

Luzerne Paper Machinery Sold

The auction sale of the plant and equipment of the Luzerne Paper Mill at Hadley, N. Y., Thursday, December 1, attracted one of the largest crowds ever attending the disposal by auction of a paper mill. The sale was under the management of Gibbs Brower & Co., Inc., of New York, and was conducted by Senator Thomas F. Burchill, of New York City, who represented the New York Power and Light Company, of Albany. The two principal items of equipment sold were the five cylinder 102-inch board machine purchased by the Franklin Paper Company, of Holyoke, Mass., and the 78-inch Fourdrinier Machine purchased by Louis Raphael, of Amsterdam, N. Y., representing the Raphael Wrecking and Salvage Company. A miscellaneous lot of equipment was purchased by J. S. Wemyss, of the Wyoming Valley Paper Mill, Northumberland, N. H., and the Rushmore Paper Mills, Windsor Locks, Conn.

The sale was considered most successful, as every item was disposed of, though prices obtained were not as good as expected, in view of the exceptionally good condition of the equipment. As soon as all the equipment has been removed by purchasers the plant is to be torn down.

Hinde & Dauch of Canada's Earnings Improve

Operations During First Ten Months of Year Have Been More Active, With Decrease In Price of Products—Bond Interest and Depreciation Met Through Economies Effected by Efficient Management—Bank Loans of $125,000 Retired During Year

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., December 5, 1932.—With a decrease in price for its products, the operations of Hinde & Dauch of Canada, Ltd., Toronto, in the first ten months of the current year have been more active and, through economies effected by efficient management, earnings of the company to the end of October were sufficient to meet bond interest and depreciation, whereas in 1931 a loss of $33,771 was incurred before bond interest and depreciation, which totalled $264,695. The improvement in earnings position is reflected in the balance sheet and the company has retired bank loans of $125,000 during the year.

Prices on test liner board, the chief product of the company, are down to $42.50 per ton delivered, a drop of 15 per cent from the price of $50 that prevailed in 1931 and very considerably below the former normal price of $60. With this drop in price the dollar volume of sales is down about 10 per cent in the first ten months of the current year, although volume of sales of Hinde & Dauch is approximately the same as in 1931 at 22,000 tons in the first ten months of 1932. This compares with 19,000 tons in the same period of 1930. The very substantial improvement in earnings is due to lower operating costs and savings that have been effected by L. F. Winchell, general manager of the company, who took charge in September, 1931. Chief savings have been effected at the Trenton, Ont., plant, where 72 men are now producing 70 tons of straw board daily as compared with 40 tons formerly produced each day by 110 men.

Hinde & Dauch Paper Company, of Canada, Ltd., was originally established in 1910 and is one of the leading producers in the industry in Canada. A majority of the common stock is owned by Hinde & Dauch Paper Company of Ohio, but the stock is listed on the Toronto Stock Exchange, where it is traded irregularly, and the bonds of the company were offered both in Canada and the United States. With the recent getting into operation of an existing board machine at the Toronto mill, paper board will be manufactured and sold to carton manufacturers.

Notes and Jottings of the Trade

The International Power and Paper Company of Newfoundland, have under consideration a change in the plans respecting the cut of pulpwood this season. Originally the company had intended cutting about 40,000 cords of pulpwood, but consideration is now being given to a cut of 85,000 cords, with the possibility of further increases to 100,000 cords.

National Cellulose of Canada, Ltd., an affiliation of the National Cellulose Corporation, of Baldwinsville, N. Y., has leased space at 579 Richmond street West, Toronto, to manufacture cellulose products, facial tissue and paper products.

Port Royal Pulp and Paper Company, operating the plant formerly owned by the Nashwaak Pulp and Paper Company at Saint John, N. B., is now in operation with a staff of some 140 men on the pay roll. The management states it has orders on hand in New England markets which justify operations, and expects output to reach normal proportions.

The Minister of Lands and Forests for Ontario has acceded to the request put forward by the Fort Frances Pulp and Paper Company for a reduction of duties on pulpwood from $1.40 to $1.00. The reduction is good for this season only and will be limited to a definite quantity of pulpcutting. In this connection it is of interest that the Port Arthur City Council has approved a proposal that the Ontario Government raise the embargo on export of pulpwood from Crown Lands in the district of Thunder Bay on condition that agreements entered into by private contractors thereby include wage clauses for their workmen.

The Great Lakes Paper Company have closed a contract with the Pigeon Timber Company, Port Arthur, Ont., to supply the paper organization with a considerable quantity of pulpwood. E. E. Johnson, president of the Pigeon Timber Company, says that about 300 men will be given employment in the operations. S. R. Armstrong, special adviser in charge of all activities of the Great Lakes Paper Company, and M. Brocklebank, representing the National Trust Company, trustee in charge, states that the Great Lakes mill has a total of 100,000 cords of wood on hand at present, which will keep the plant running for more than a year. At present only one machine is in operation with a total output of about 180 tons a day, or 5,000 tons of news print a month.

Pulpwood in the Restigouche district of New Brunswick is moving quite freely, the mills at Dalhousie and Atholville requiring considerable stock for the production of paper. Now that the New Brunswick International Paper Company has decided to buy wood from the farmers and settlers of the district the cut will likely be increased and, if the quantity to be purchased by the company is large enough, a good many of the unemployed woodsmen will find work.

Some 21 owners of timber land around Maitland Bridge, N. S., have taken contracts for cutting pulpwood for the Mersey Paper Company, ranging from 10 to 300 cords. The villages of Northfield, Kempt and Grafton are also contracting largely. This will mean a distribution of nearly $10,000 in this district as the result of the winter's work. The entire cutting will be piled on the banks of the Maitland River and driven down in the Spring to join the round-up at Lake Rossignol.

J. W. Hewitt, of Paper Sales, Ltd., Toronto, has returned from a successful hunting expedition in the Haliburton district.

George W. Pauline, managing director of Alliance Paper Mills, Ltd., has returned after a business trip through the Maritime Provinces as far east as Nova Scotia.

Kokomo Waste Materials Formed

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., December 5, 1932—Articles of incorporation have been filed with the secretary of state here by the Kokomo Waste Materials, Inc., of Kokomo, Ind., formed to do a general business in paper stock and other materials. The corporation has an initial capital stock of 50 shares having a declared value of $100 each and the first board of directors is composed of Harry Mayer, Vera A. Mayer and Leopold Mayer.

Paper Demand In Boston Market Is Fair

While Business Has Not Improved Since the Pre-Election Period, Paper Merchants are Optimistic for More Activity After the Turn of the Year—Wrapping Paper Problems are Discussed at Meeting of New England Paper Merchants Association

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., December 5, 1932.—General conditions in the wholesale paper market were practically unchanged last week from those of the previous week, with the volume of sales hardly better than fair. The foreign debt situation is felt to have injected the element of uncertainty into the market, impeding trade, as in other industries, but dealers are hoping for the best. With some, business has not improved since the pre-election period, but paper merchants are optimistic for more activity after the turn of the year. The holiday season, of course, lends a favorable slant to the situation.

A moderate demand prevailed for bonds, ledgers and writings, as well as for papers for printing purposes, including advertising campaigns. Some dealers in fine papers say the market "is improving a little bit all the time." The majority of wrapping paper dealers reported a fair demand, although some experienced a "quiet" or "poor" week. There was a moderate call for box board, with values continuing firm at the same levels. The volume of demand is reported considerably less since much or all of the need of material for boxes in connection with the Christmas trade has been filled.

Paper stock remained quiet, with a few declines in price. White blank news receded to .90 @ .95 from a range of .95 @ 1.00, and No. 1 kraft to .75 @ .85 against .80 @ .90.

The twine market was fair, with prices unchanged.

New England Paper Merchants Meet

Problems of particular interest to wrapping paper dealers were discussed at the regular meeting of the New England Paper Merchants Association at the Harvard Club of Boston Thursday evening. The meeting, attended by approximately 30, was held under the auspices of the wrapping paper division. In the absence of the president, William Rourke, on account of illness, the vice president, Willard Loud, presided. At the business meeting, the following were appointed as nominating committee to bring in names for officers, to be voted on at the annual meeting in January: William N. Stetson, Jr., chairman, Harrie E. Waite and Charles Shaw. Wrapping committees as representatives to the national convention were appointed as follows: Kraft, Matthew Byrne; bag, Edward Eaton; tissue, Alden Howard; gum and tape, Floyd Blackman; twine, John Blackman; specialties, Walter Butler; survey, Frank Merrill; credit, Robert M. Stone.

Open Bids for State Paper

The State Commission on Administration and Finance opened bids at the State House on Thursday for the purchase of between 500,000 and 600,000 pounds of paper, the yearly supply for use in all branches of the State government, but it is understood that awards will not be made until a week or more. It is estimated that the purchase will consist of approximately 100,000 pounds of machine finish book, 27,000 pounds of medium ledger paper, 88,000 pounds of white and colored sulphite ledger, 160,000 pounds of medium grade (rag content) bond, 100,000 pounds of sulphite bond, 25,000 pounds of various grades cover paper, 32,000 pounds of mimeograph, 8,000 pounds of chemical manila, and other small items. After bids are received, samples of each grade of paper are tested by the State Chemists, who report their findings to Charles P. Howard, chairman of the commission.

Paper Firms Have Good Safety Record

Among the 40 corporations that operated without an accident this year in the State-wide industrial accident reduction contest under the auspices of the Massachusetts Safety Council were Bird & Son, Inc., East Walpole; Plymouth Cordage Company, Plymouth, and Forbes Lithograph Company, Boston.

Paper Concerns Make Exhibits

Among the companies having exhibits in connection with the annual fall convention of the New England Bakers' Association at the Hotel Statler Nov. 28-30 were the following: American Tissue Mills, showed a line of paper napkins, especially for bakers conducting lunch-rooms, on which were printed names of articles of food and the companies selling this food. The company showed wax papers and bread wrappers. The Continental Paper & Bag Corporation, a division of the International Paper Company, featured bags of all descriptions. The company showed promotional plans for rapid bag and packaging work, packing rolls, bread and all other baked commodities. The Nashua Gummed & Coated Paper Company showed a waxed paper making possible printing of remarkable clearness, stating that the "Nashua Lithochrome, the new 1933 Bread Wrapper, has 'bread' appeal." The Milprint Products Company, converter of cellophane had a display of its goods. The Sherman Paper Products Company featured cake pan liners.

Howard Paper Co. Awards Prizes

In a contest lasting six months, conducted by the Howard Paper Company on the Howard and Maxwell Paper Companies' products through the Andrews Paper Company of this city, its distributor in New England, Fred Herbolzheimer won the first prize, the Howard Gold Watch, and Donald L. Gibbs the second prize, a paper caliper. The contest was open to all at the Andrews Paper Company. This watch is of the same make which the Howard Paper Company has awarded in similar contests through its distributors in various parts of the country. Frank H. Merrill, president and treasurer of the Andews Paper Company at a sales meeting presented the watch to Mr. Herbolzheimer in behalf of the Howard Paper Company and the caliper to Mr. Gibbs in behalf of the Andrews Paper Company.

Penn Card Co. in New Location

The New England agency of the Penn Card & Paper Company has taken space at 143 Federal street.

Court Reverses Import Decision

WASHINGTON, D. C., December 7, 1932.—In the case of the United States against T. D. Downing Company the Court of Customs & Patent Appeals states that in reappraisement proceedings the United States Customs Court found that the entered value was the proper dutiable value of certain wrapping paper, but held it to be the foreign value instead of the export value as claimed by the importer. The Court of Appeals has reversed the decision of the Customs Court and the cause remanded to determine whether there is substantial evidence establishing export value.

Demand for Paper Slows Down In Philadelphia

Decided Spurt Experienced In Early November Virtually Disappears—Wrapping Paper Conditions Continue Unsatisfactory, With Competition for Desirable Orders Intense—Standard Grades of Fine Paper In Sound Statistical Position

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., December 2, 1932—Trade experience during the week, in which much was hoped for, though little was expected, has in truth had the real experience of a slowing down approaching almost a setback. Optimism is still firmly entrenched but though the jobbing trade would prefer, if it honestly could do so, to say that recent gains have been held and that the movement is to even better things, the admitted fact is that the decided spurt experienced in early November has virtually disappeared. Contrasted with that period, December does not show up well but as against what may be spoken of as normalcy in these trying times, fair business is perhaps still maintained.

Of course, the explanation lies, so far as the jobbers are concerned, in the falling off of orders. The printing trade generally is more than quiet; it is almost flat. For wrapping and coarse paper divisions of the trade the conditions of smaller buying are aggravated by the demoralization which exists in the matter of price cutting to secure business. The mills in order to keep up operations are making inducements to buy, and of course are urging extra effort by the jobbers to dispose of the product and they in turn, partly from this reason and also because of their desire to sell where the other fellow may have failed, are breaking down prices much below a profit making business, and approximating costs.

In this rather unfavorable situation there does stand out very clearly and very inspiringly the fact that among the fine papers the standard well advertised and therefore recognized brands have not been compelled to forget manufacturing costs for the sake of getting business. There is, of course, no such thing as the fixing of prices, but nonetheless unfair competition does not exist and very largely for the reason that with standard brands, there does not exist the reason for it. On the other hand, in the coarse paper trade where these standards are by no means so general as they are in fine paper, there is real fierce competition.

Paper Trade Association Activities

In an effort to remedy the situation there has been revived and during the week will culminate the program of the Industrial Division of the Paper Trade Association to have all engaged in it thoroughly understand the situation and to persuade those not yet connected with the division that their best interests lie in uniting with it, in cooperation and in the elimination of abuses now so very prevalent. This movement, it will be recalled, was inaugurated early in the year but for some recent months has been rather quiescent. An earnest effort, however, is now under way to revive and enforce the program at that time tentatively adopted, with the result that on Tuesday a meeting will be held in the office of the D. L. Ward Company under the auspices of the Planning Committee of the Industrial Division. On this committee there are representatives of the Garrett-Buchanan Company, the J. L. N. Smythe Company, the D. L. Ward Company, the Paper Manufacturers Company and the Quaker City Paper Company. The possibilities of the Industrial Division are a membership of approximately twenty-five firms, of which considerably more than one-half have not been enrolled.

The situation in the paper stock market maintains steadily in the better grades but is very soft in the commons. However, while the inside rather than outside prices under the downward revision made a week ago maintain, there is not yet warrant for a further downward revision of quotations.

World-Wide Business Conditions Discussed

During the week three export managers of the Philadelphia district, who have just returned from foreign lands, discussed world-wide business conditions at a dinner meeting of the Foreign Traders Association under the auspices of the Chamber of Commerce at the Manufacturers Club. The following speakers participated: John B. Hay, export manager of Scott Paper Company, of Chester; J. F. McCrudden, export manager, Aberfoyl Manufacturing Company, of this city, and L. K. Winter, Continental-Diamond Fibre Company, Bridgeport, Pa.

Paper Bag Institute Meets

The regular scheduled meeting of the Paper Bag Institute of Philadelphia was held at the Elks on Wednesday evening, and for the most part was given over to the Welfare Division of the Institute. A general discussion of ways and means of bettering conditions, particularly with regard to the cash discount question, was participated in by all those present. Serious consideration of cutting out discounts and selling on net prices was indulged in. Opinion was general that the demand for Christmas goods is coming in heavy, and collections on the whole are much better.

Wm. McGarrity Returns to Duty

William J. McGarrity, head of the Penn Paper and Stock Company, who for some time has suffered through illness and enforced diminution of his activities, has returned to his office and is again active.

Bids for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 7, 1932.—The Government Printing Office has received the following bids for 5,000 pounds of yellow ledger paper; Aetna Paper Company, 10.22c per pound; R. P. Andrews Paper Company, 11.2c; Carew Manufacturing Company, 15.5c; Whiting Paper Company, 13.5c; Dobler & Mudge, 10.94c; Charles G. Scott & Co., 11c; Mathers-Lamm Paper Company, 14.6775c; Barton Duer & Koch Company, 10.5c; Hawthorne Paper Company, 11.19c; Virginia Paper Company, 12c; Reese & Reese, 12.37c; and Stanford Paper Company, 11.5c.

The following bids were also received for 4,050 sheets of blue cloth lined paper; R. P. Andrews Paper Company, $12.20 and $17.25 per M; Barton Duer & Koch Paper Company, $13.50; Virginia Paper Company, $11.76 and $17.53; Mathers-Lamm Paper Company, $12.3375; Nashuan Gummed and Coated Paper Company, $13.00 less 2 per cent; Charles G. Scott & Co., $11.73 and $17.48; Reese & Reese, Inc., $13.20; Dobler & Mudge, $11.50 and $16.50; and Lindemeyr Paper Company, $13.75.

An Answer to the Temporary Committee Opposing Tariff on Wood Pulp

Seattle, Wash., November 28, 1932.

EDITOR, PAPER TRADE JOURNAL.

In your issue of November 3, 1932, you give first position to a letter addressed to President Hoover by H. P. Christian, chairman of the Temporary Committee Opposing Tariff on Wood Pulp. This letter is presented as an answering argument to a petition filed by a group of United States producers of wood pulp operating in the Pacific Coast states. As a subscriber of PAPER TRADE JOURNAL, I strongly object to the prominence you have given to Mr. Christian's internationally minded letter and to the implied support of his position which you give by such prominent display.

If Mr. Christian's arguments were entirely fair, unbiased and to the best interests and welfare of pulp and paper producers in the United States, and in turn to the best interests of the United States as a whole in alleviating its distressing problem of unemployment, I could take no objection. However, Mr. Christian is either grossly unaware of the actual situation or is purposely misleading in his statements in order to secure or retain narrow gauged selfish interests.

On general grounds, Mr. Christian's letter proceeds on four false assumptions, namely 1, that the petition asked for a tariff on pulp; 2, that United States pulp producers in the Western states have an organized plot to destroy the converting mills in their own country in the Eastern states; 3, that currency equalization would be the equivalent of a total embargo on wood pulp and thereby shut off absolutely the supply of wood pulp to the protesting converting mills; and 4, that comparisons within the United States pulp and paper industry can equitably be made purely on the basis of number of mill units.

Let us take up Mr. Christian's letter in some detail. He states definitely in his first paragraph that Oregon and Washington wood pulp manufacturers plan "to force the pulp purchasing mills in the other states into a position of absolute dependency upon their competitors in the Pacific Northwest." This strong statement cannot be allowed to pass unchallenged. What is Mr. Christian's proof to support his charge?

In the second paragraph he states that "wood pulp has rightfully been on the free list for many years." On what grounds is he entitled to use the word "rightfully"? Is he not aware that there is within the continental limits of the United States sufficient pulp wood resources to supply in perpetuity the entire wood pulp requirements of the nation? Is he not aware that the forest resources of the United States are now subjected to tremendous unnecessary losses because the sharp competitive conditions imposed upon the domestic wood pulp industry does not permit the most complete and efficient utilization of these resources?

Mr. Christian places emphasis on the statement that the appeal for emergency protective legislation on behalf of the Western mills is a selfish move on the part of a relatively small group of the total number of mills in the United States. He holds up by way of contrast that this action seeks to destroy "70 per cent of the paper mills in the United States." Is it not entirely unfair to make comparisons on the basis of mill units when the capacity of certain units is 10 or 20 or more times the capacity of other units?

May I suggest that if Mr. Christian wishes to make comparisons that he will adhere much more closely to the truth if such comparison is made on the basis of tonnage and on the total number of effective employees in each group. Basically, this entire question is one of employment. Therefore, any consideration must regard the total number of people that an industry or any portion of it will employ. It is futile to compare the employees in pulp mills as against employees in paper mills on that basis alone. It must be realized that back of the pulp mills is a tremendous army of pulp wood cutters, foresters, transportation men and others involved in the direct flow of materials. This auxiliary army is not covered in pulp and paper mill industry statistics. Neither is that army of employees considered which is engaged in the manufacture of equipment and supplies necessary to pulp manufacturers. It should be so obvious as to make it unnecessary to point out that every ton of pulp or paper imported deprives Americans of useful employment in fabricating pulp and paper machinery. The auxiliary industries are not only tremendously important as employers of labor, but it would seem simple wisdom in your own case as the editor of a journal to realize that you can take little or no part in the advertising expenditures attending the placement of machinery and supplies in foreign mills.

Mr. Christian states in his fourth paragraph that the emergency relief measures proposed by the Western mills in their petition would "cut off" entirely the supply of wood pulp for the converting mills. This is entirely untrue and can be abundantly supported by statistics. In the first place, all that is asked is a restoration of competitive conditions which existed prior to the general flight from gold which permitted foreign manufacturers of pulp to operate under the entirely unfair advantage of depreciated exchange. In the second place, the United States produced in 1931 4,100,000 tons of all grades of pulp and in the same year imported 1,587,557 tons, or 28.2 per cent. In the same year the United States pulp producers did not operate at capacity. The emergency action of currency equalization would only restore competitive conditions to an equitable basis. It would not shut out imports, but even should such action be equivalent to an embargo—which I emphatically insist it is not—there would still be available to the converting mills an excess capacity of domestic production.

Mr. Christian states that "it is necessary for the converting mills to import large quantities of wood pulp to take care of their requirements." I do not believe, and I am not alone in this opinion, that the "necessity" which Mr. Christian emphasizes is anything more than a "desirability" initiated by purely selfish interests on the part of the converting mills. As mentioned above, the United States can on the basis of its pulp timber resources supply every pound of pulp necessary to meet the total paper consumption of the United States in regards to both quantity and quality. Has it never occurred to Mr. Christian that the exports of paper from the United States are nil and that the imports of finished paper with the sole exception of news print and duplex decalcomania are protected by tariff? That the United States producer of paper looks

only to the United States for his market? That when he denies employment to any substantial portion of the United States citizens—as he does in opposing legitimate protection for the wood pulp producers—he undermines his own market? Can it really be true that Mr. Christian and others who support the Temporary Committee Opposing Tariff on Wood Pulp, are so unmindful of national economics and so selfishly and solely interested in their own welfare that they desire above all things to build up strength and perpetuate an industry in foreign countries, a foreign industry which provides no base for consuming power that will benefit the domestic converting mills?

In his tenth paragraph Mr. Christian presents certain statistics which can only be interpreted as a pitiful failure to inform himself or a deliberate attempt to present misleading information. He infers in his figures on increased production that this increase represents additional wood pulp tonnage thrown upon the competitive pulp market. The facts are that in the so-called "boom" period on the Pacific Coast, new annual capacity of 525,000 tons of chemical pulp was added but of this amount only some 380,000 tons represented pulp which went into the competitive pulp market, whereas 145,000 tons represented new pulp tonnage which was immediately translated into paper production in West Coast mills for distribution in Western states.

These figures should be further qualified in that they represent only theoretical tonnage and by no means represent actual production, which of course has been materially curtailed on the West Coast due to the general decrease in consumption. Nevertheless, the new tonnage of wood pulp brought into being on the Pacific Coast and thrown into the competitive market represented only approximately one-fifth of the total wood pulp imports. Meanwhile, is it not significant that during the same years in which pulp production expanded on the Pacific Coast that imports continued to expand, going from 1,173,635 tons in 1926 to 1,832,362 tons in 1930? Is it not also significant that in 1931 and 1932 the imports of pulp have declined in much smaller percentage than has the domestic production of wood pulp?

When Mr. Christian refers in his twelfth paragraph to "the hasty and ill-advised expansion in the Pacific Northwest," and makes this statement in evident sincerity, he cannot hope to appeal for much trust in his general logic. He certainly is advised of the insufficiencies of the domestic wood supply as evidenced by the rising tide of imports and knows that the new West Coast pulp production was designed only to supply a logical domestic market.

Further, Mr. Christian looks askance at the quality of Pacific Coast pulps. Granted that some limited tonnage of pulp was offered at first which was inferior to pulp secured from older established sources. Nevertheless, if Mr. Christian and the other members of his committee insist on adhering to this plea of inferiority in light of developments of the past five years, he cannot be said to be current with events. On the same basis, isn't the entire argument set forth in his letter dismissed as equally unreliable? It is a definitely known fact, and there is a multitude of support to this fact to be found among leading pulp users in the Eastern states, that chemical pulps are now being produced on the Pacific Coast from native woods which are the equal of, and in instances superior to, pulps obtainable from any part of the world. If Mr. Christian and the others of his committee have any doubts on quality, I am sure if he will only take his problem to Pacific Coast mills, or to individuals who are familiar with the Pacific Coast conditions and possibilities, every point of question on quality will be thoroughly satisfied.

Thus far I have chiefly emphasized the particular position of the West Coast producers. In so doing I do not in any way intend to belittle the importance of the wood pulp industry from the national standpoint. The production on the West Coast is a relatively small portion of the total national production, and it is certainly apparent that any emergency protection asked for, even if that request was initiated by Western mills, will apply equally well to every plant in the United States which has investment in timber lands and equipment for pulp manufacture. Pulp manufacture is no small item in itself but it represents, as I have previously pointed out, the focal point for a tremendous army of labor involved in the industries auxiliary to direct manufacture. Furthermore, it would seem only the part of common sense and good judgment for the converting mills to desire earnestly to protect the welfare of the domestic pulp industry to the end that they will not entirely extinguish that industry and place themselves eventually upon the unrestrained mercy of foreign producers who are beyond the reach of our legislation.

The opposition committee infers that remaining pulp timber stands are now in relatively few hands and that "all the claims have been staked out." Any analysis of actual conditions will prove this to be untrue. What is there to prevent the converting mills from establishing, either individually or collectively, their own pulp supplies in forested regions in the United States?

It may be that the group which is opposed to the welfare of the wood pulp industry did not intentionally intend to confuse and mislead when they selected the name under which they do business, "The Temporary Committee Opposing *Tariff* on Wood Pulp." It will be recalled that the opposition committee originated last spring to defeat emergency currency equalizing legislation asked for by wood pulp producers in all parts of the United States in conjunction with manufacturers in many other affected industries. The issue was not one of tariff but one of currency equalization, but whether through sheer failure to grasp the significance of depreciated exchange, or through strategical desire to confuse the issue for selfish purposes, the converting mill group continually used the word "tariff" and this in no small measure helped to defeat the legislation.

If Mr. Christian insists on referring to the Federal Government to support his arguments—notably the repeated references to the findings of the United States Tariff Commission, discredited now in the light of fuller developments and an adequate elapse of time—let him familiarize himself with the recent report of Colonel F. E. X. Elbe, Commissioner of Customs. That report, which originates with a Federal body equally as well informed on tariff matters as Mr. O'Brien of the United States Tariff Commission, is excellent and forceful testimony, supported by excellent proof, that depreciated exchange competition is the greatest threat ever to be made against American industrial integrity. Why, may one ask Mr. Christian, can the West Coast pulp producers be accused of narrow interests when Colonel Eble's report shows that 60 complaints have been filed by American manufacturers with the Bureau of Customs, Treasury Department, against dumping of foreign merchandise in our markets—complaints which are in number eight times the normal average of the preceeding five years. The members of the Temporary Committee Opposing Tariff on Wood Pulp, in their predilection to ignore the truth, may not wish to read Colonel Eble's report, but if they do they will find it enlightening.

How long are the converting mills going to continue to march out of step? Are they still so blind that they do not realize that currency depreciation has become a threat of gravest character to all national industries? Have they

Are you missing a new sales point by ..... .004"?

It's proving out in one mill after another:

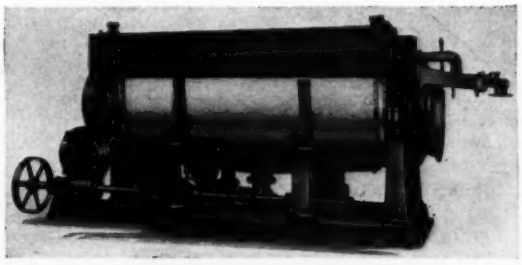
The easiest, quickest *and by far the most economical way to get the greatest extra paper cleanness per dollar expended* is to install Bird Screens of the right size and fitted with the right plates.

A book mill was operating two "regular" Bird Screens with .014" cut plates . . . replaced them with larger Bird Screens fitted with .010" plates . . got an immediate reduction of 50% in surface speck count.

A fine paper mill had Bird Screens operating with .014" cut plates on its two machines . . . tried a larger Bird Screen with .010" plates on one of them —with such a marked improvement in quality that they immediately changed the other.

In your mill, a similar change may give you a similar result—*a valuable new sales point at trifling cost.*

May we help you find out? Write; our survey won't cost you a cent.



BIRD SCREENS

BIRD MACHINE COMPANY BIRD MACHINERY **South Walpole, Massachusetts**

5459

not followed the news of the day and noted the frequent references to the subject of depreciated exchange, and the necessity for solution of the problem referred to repeatedly by many figures of national importance including President Hoover?

Finally, there is a great community of interest between all parts of the pulp and paper industry in the United States. If there is a sick member of the family, the burden of illness must fall upon the others. I feel strongly, with millions of others in this great country of ours, that the opportunities for employment should be preserved, first for our own citizens, so many millions of whom are now on the hands of charity. If there are differences between different groups within the industry, certainly they cannot be so large but what points of variance can be adjusted. Certainly it is to the advantage of all to find this adjustment. However, if your journal is to lean backwards on the internationalist's side, it cannot be credited as an acceptable American voice.

Very truly yours,
KENNETH SHIBLY.

[Note—The PAPER TRADE JOURNAL does not make the news, but it is its business to print the news. Working on this assumption, we printed on the first news page of the PAPER TRADE JOURNAL of October 20, 1932, under the caption "Far West Paper and Pulp Mills Ask Relief," a petition presented to President Hoover by the manufacturers of Washington and Oregon to declare new and additional duties on wood pulp imported into the United States from those countries that have discriminated in fact against the commerce of the United States. This seemed to us interesting and legitimate news which should be run in a conspicuous position. On November 3, 1932, we printed on the first page of the PAPER TRADE JOURNAL, under the caption "Paper Men Oppose Tariff on Wood Pulp," a letter to President Hoover which was an answer by H. P. Christian, chairman of the Temporary Committee Opposing Tariff on Wood Pulp. This also we considered interesting and legitimate news and it was printed in an equally conspicuous position. As may be seen from the foregoing, the PAPER TRADE JOURNAL has simply endeavored to present both sides of this controversy in a fair and impartial manner.—EDITOR, PAPER TRADE JOURNAL.]

A Plan to Create Maximum Demand for Paper

Chicago, October 24, 1932.

EDITOR PAPER TRADE JOURNAL:

Over-production, the curse of the Paper Industry, can only be licked two ways. The negative way is to want for more babies to be born and grow up. The positive way, is to show people how they can advantageously use more paper.

The only cooperative attempt to do this is exemplified by the Paper Makers' Advertising Club, where two dozen mill members have consistently preached and practiced direct advertising for the last eighteen years. Their publication, *Direct Advertising,* goes quarterly to 9,000 printers and advertising experts.

To these broad visioned manufacturers some credit is due for the increase and improvement of advertising by the Printed Word. . . . An article appearing in *Printing,* the Newspaper of the Graphic Arts Industry, has stated "Probably no other one factor has been of as great direct benefit to the printing trade, as has been the constructive work of this club."

So far in the annals of the paper trade no other organization has contributed a cent, outside of their private advertising appropriations, to increase the demand for paper.

Thousands of hours and dollars have been spent in formulating cost systems and trade customs, but not one penny has been spent, so far as I know, either by the American Paper and Pulp Association or the National Paper Trade Association representing the merchants, on any constructive plan to increase the demand for paper.

Every one of experience in any phase of the paper trade has learned that, when the demand for paper is brisk, cost systems and trade customs take care of themselves, but when the demand is slack, as it has been lately, cost systems and trade customs are both discounted and disregarded in the struggle for business. What can we do now to widen the demand for paper as a whole?

Dramatize Paper

Can we devise a plan practical enough to deserve the financial support not merely of one small group in a special field, but of the entire paper industry? I believe we can, and I have such a plan to offer.

This plan in two words is "Dramatize Paper."

How can this be done?

The stage is all ready for us. It only awaits the scenery and actors. A larger audience than has ever been assembled in America is assured to us, in Chicago. The time is June 1 to December 1, 1933. The place is the Century of Progress Exposition.

One building has already been provided to house the Graphic Arts and ample space is also there for the paper industry as well. Yet the industry has so far not reacted favorably, except in a few individual cases. Within the walls of this building let the paper industry as a whole, unite to dramatize paper as it never has been done. To show the world the countless ways in which paper and paper products, or in which commodities composed in whole or in part are being used. And can be satisfactorily used more economically and in greater volume.

Wherever you can prove that paper in any form can be effectively used more economically than other raw materials, it will be used.

Until you can show them this can be done, people and corporations will only discover it gradually and slowly. Let us show them convincingly and immediately, for their benefit, and ours, in how many ways they can begin at once profitably to use more paper.

The plan specifically is simple, practical and dramatic. It will visualize, it will prove, it will convince as can no other method.

Century of Progress Exposition

Now imagine yourself a visitor to the Century of Progress Exposition. Your attention will surely be attracted by the unique Hall of Science near the main entrance and just back of this you will come across the Graphic Arts Building. The focal point of this exhibit can be yours for the asking. There in a commanding setting, we can erect the Paper House. A building composed, with the exception of frame work and floors, completely of paper. Furnished throughout with products made from paper of all sorts. Decorated with paper embellishments. Carpeted with paper rugs and floor covering. Shingled, boarded, roofed, protected from heat or cold, thanks to the cheap-

DOWNINGTOWN

Maintenance for 10 Years Averages No More than the Cost of these Cigarettes

SUCTION ROLL BEARINGS

On all suction rolls we have ever built, which covers a period of over ten years, the total replacement cost of bearings has averaged only 47c. per roll. ⁂ The efficiency of Downingtown Sealed Sleeve-Type, Self-Aligning Bearings is as good as their reliability. A Downingtown Suction Roll 245 in. wide, 32 in. in diameter, uses only 1.55 H. P. when operated at 815 F. P. M. paper speed with the packing away from the shell. ⁂ What more can be expected of any bearing? ⁂ The Downingtown Mfg. Co., Downingtown, Pa.

BEARINGS GUARANTEED FOR 5 YEARS

est building material in the world, paper. It can be made unique, a high spot of the entire exposition.

This building will have three main functions. These may be described broadly as, Domestic, Industrial and Commercial. The first will be dramatized by a living room, a kitchen and a dining room. The second by the structural features of the building itself. The third by the office of the building demonstrating the latest uses of paper for business needs. All three will be evidenced by the Museum of Paper and Paper products to which one third of the space will be devoted.

Such a cooperative exposition of paper and paper products, will open our own eyes and the eyes of the world to undreamed of possibilities for the uses of paper.

The dramatization of this subject can be expanded by lectures on different aspects of paper, showing its usefulness to mankind. Perhaps we can arrange to have a twenty minute talk once or twice a week by experts in various branches of the industry, and these talks could be transmitted nationally by radio. Some say radio advertising has cut deeply into printed advertising. Well radio is a two-edged sword. Let us, instead of bemoaning its inroad, use it to return business to the paper industry.

The perfection of this plan to Dramatize Paper calls for the cooperation of many minds, since the ramifications of the industry are so diverse that no one person can possibly cover the subject alone.

The cost of the venture to individual corporations will be slight if the two associations, the American Paper and Pulp Association and the National Paper Trade Association, all of whose members stand to benefit, will do their part.

The cost of space required for five months exhibit at the Chicago Exposition would be covered, if each of the eight hundred odd mills in the country would contribute $50.00 apiece, or $10.00 a month.

A rough estimate of the total expense would be:

Rental of space		$35,000.00
Construction of building		5,000.00
Manager for one year		5,000.00
Secretary for one year		1,300.00
Six attendants for 22 weeks at $25.00 each		3,300.00
		$40,600.00
Sundries		9,400.00
Total		$50,000.00

The two associations together should appropriate $50,000.00. In case individual corporations desire to have special exhibits in close proximity to the paper house, space is available and prices can be obtained on application to the Century of Progress, Chicago.

My suggestion is that the members of both associations be called upon to underwrite the required sum of money.

There are some eight hundred mills and 2000 paper merchants in the country, all, whether members or not, should be solicited. All will share in the benefits and should be willing to contribute to the cost. If 1000 participate, this could only mean $50.00 apiece or $10.00 a month.

It is estimated that there will be 300,000 visitors a day at the Century of Progress Exposition, which lasts 153 days. In other words the total number of visitors should exceed fifty million people. If only one fiftieth visit the paper house, think what it may mean to all of us, that one million people should see and become aware of using more paper in their daily lives!

Doesn't that make the investment in the Dramatizing of Paper look good to you? Let us not wait for a normal slow revival in paper. Let us prepare today to make the country paper-minded in 1933.

WILLIAM BOND WHEELWRIGHT.

Obituary

Frederick H. Chase

Frederick H. Chase, widely known and respected as the "Grand Old Man" of the paper stock industry, died on Monday, November 28, at his home in East Orange, after undergoing an operation. He was 68 years old. Mr. Chase spent almost 54 years in the waste paper business. He entered the field in December, 1878, as an office boy for Atterbury Bros., who at that time had just opened a paper stock packing plant at 253-255 Front street in New York. He remained with that firm for six years, becoming a salesman and buyer, visiting the paper mills and growing fairly well known in the trade. He then, together with James North, superintendent of the Atterbury Bros. packing plant, went into business on his own behalf under the firm name of Chase & North, which partnership was continued until 1889 when it was dissolved on the death of Mr. North.

The following year, 1890, the firm of Chase & Norton was organized by Mr. Chase and Thomas Norton, and this partnership operated very successfully in the waste paper business for 26 years, when in 1916, on the sudden death of Mr. Norton, Mr. Chase incorporated the business as Chase & Norton, Inc., of which he was president and treasurer and which continued in business until 1923 when it was liquidated. Afterward Mr. Chase was with Daniel M. Hicks, Inc., for about six years, and more recently had operated on his own under his own name as a dealer or broker in waste paper.

Mr. Chase was a charter member of the New York Association of Dealers in Paper Mills' Supplies, Inc., and for many years after the formation of the association acted as its secretary. Since withdrawing from the post he continued to play an important part in the Association's activities, and in recent years had charge of the entertainment programs at the association's annual banquets.

Earl Bevis

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, December 5, 1932—Earl Bevis, 55 years old, Middletown, Ohio, president of the Shartle & Bevis Machine Co., died December 2 at the Middletown hospital following an appendix operation. Death was caused by heart disease. He had submitted to an operation and was on the road to recovery when he was stricken the previous evening.

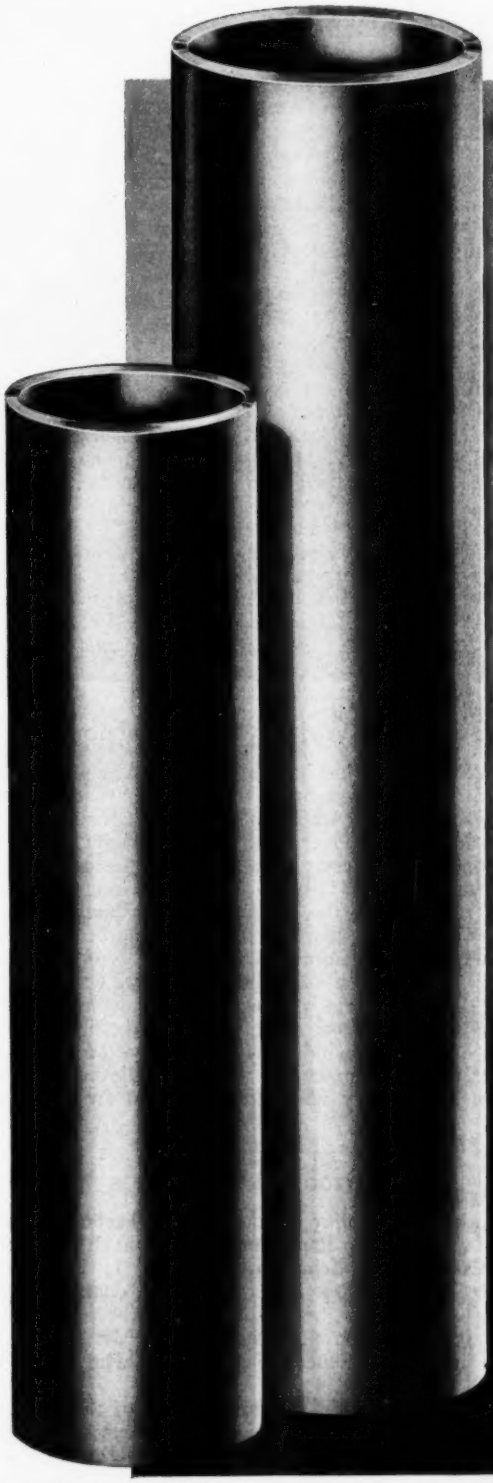
Born and reared in Middletown, Mr. Bevis was a son of one of Middletown's pioneer families. He was in business for more than 20 years. Surviving him are his widow and three children. He was one of the well known manufacturers of paper mill machinery in the Miami Valley.

Mr. Bevis was active in business and civic enterprises of Middletown. He was a member of the Masonic order, the Elks, and of the Rotary Club.

Clifford A. Parsons

[FROM OUR REGULAR CORRESPONDENT]

DEXTER, N. Y., December 5, 1932—Clifford A. Parsons, retired paper mill superintendent, died this week at his home here following a brief illness. He was 52 years old. He was regarded as an authority on ground wood plant operations and a considerable portion of his life was passed in Canada where he was superintendent of various mills. For a time he was also employed at a mill in Deferiet. A few years ago he purchased a home here where he has lived since. The survivors include his wife and three children.



NATIONAL USS STAINLESS AND HEAT RESISTING PIPE AND TUBES

Paper manufacturers find important advantages in the use of NATIONAL U S S Stainless and Heat Resisting Pipe and Tubes. Added to the advantages of being a seamless product made from superior quality Open Hearth steel, and having a wide adaptability, the special virtues of these tubes are superior corrosion resistance, effective even at high temperatures, and more particularly, resistance to attack by certain troublesome acids. Among several compositions that are available, those recommended especially to the paper industry are USS 18-8 (18% chromium, 8% nickel), U S S 17 (17% chromium), and U S S 12 (12% chromium).

NATIONAL U S S Stainless and Heat Resisting Pipe and Tubes can be readily cut, threaded, flanged or bent. They are made in a wide range of diameters, wall-thicknesses, and lengths, and with plain, upset, or otherwise formed ends. A large assortment of sizes is kept in stock for immediate shipment.

Investigate now the possibilities of Stainless and Heat Resisting Tubes in your plant. NATIONAL Engineers will gladly lend their aid in determining the best application of this material to particular requirements. Descriptive literature upon request.

U S S Chromium-Nickel Alloy Steels are produced under the licenses of the Chemical Foundation, Inc., Krupp Stainless Steel and Fried. Krupp A. G. of Germany.

NATIONAL TUBE COMPANY

Frick Building, Pittsburgh, Pa.

QUALITY PRODUCTS — Dependable Service

SUBSIDIARY OF UNITED STATES STEEL CORPORATION

PRINCIPAL SUBSIDIARY MANUFACTURING COMPANIES

American Bridge Company
American Sheet and Tin Plate Company
American Steel and Wire Company
Carnegie Steel Company
Columbia Steel Company
Cyclone Fence Company
Federal Shipbuilding and Dry Dock Company
Illinois Steel Company
National Tube Company
Oil Well Supply Company
The Lorain Steel Company
Tennessee Coal, Iron & R. R. Company
Universal Atlas Cement Company

Pacific Coast Distributors—Columbia Steel Company, Russ Building, San Francisco, Calif. *Export Distributors*—United States Steel Products Company, 30 Church Street, New York, N. Y.

New York Trade Jottings

George W. Sisson, Jr., president of the Racquette River Paper Company, of Potsdam, N. Y., is visiting New York.

* * *

H. P. Gould, president and treasurer of the Gould Paper Company, Lyons Falls, N. Y., was a recent New York visitor.

* * *

Wilson Compton, secretary of the National Lumber Manufacturers Association, of Washington, D. C., and well known in the paper industry, is spending several days in New York.

* * *

Dr. Charles H. Herty, research chemist in charge of the Division of Pulp and Paper Research of the Department of Forestry and Geological Research, at Savannah, Georgia, is a prominent New York visitor this week.

* * *

Hamilton T. Disbrow, president of Coy, Disbrow & Co., general paper merchants, of 686 Greenwich street, New York, will celebrate his eightieth birthday on Tuesday, December 13. Mr. Disbrow has had no less than 57 years experience in the paper industry and is still very active.

* * *

Paper cut or shaped for boxes and not lithographed is subject to duty at 30 per cent under Paragraph 1413 of the tariff and not at 35 per cent as manufacturers of paper, according to a decision of the United States Customs Court sustaining a protest of the Keller Dorian Paper Company, Inc., New York.

* * *

The Chase National Bank of the City of New York, trustee, is notifying holders of Continental Paper and Bag Mills Corporation first and refunding mortgage 6½ per cent twenty-year sinking fund gold bonds, series A, due February 1, 1944, inviting bids for the sale to it at prices not to exceed 105½ and accrued interest of these bonds to an aggregate amount not to exceed $72,343. Bids must be submitted before 3 P.M., December 19, to the corporate trust department of the bank, 11 Broad street, New York.

* * *

Herbert J. Grey, head of the Wilkinson-Grey Company, general paper merchants, of New York, ensured a happy spirit among his employees and customers by staging a three-day theatre party at the Waldorf Theatre. He bought out the entire house for Monday, Tuesday and Wednesday for "Whistling in the Dark." Mr. Grey states that he believes that there is plenty of business to be had and that the best way to obtain it is to spend money, raise salaries and get out after the orders, rather than by slashing salaries, cutting down on help and sighing about the depression.

* * *

There was an excellent attendance of members and guests at the regular weekly luncheon and meeting of the Eastern Division of the Salesmen's Association, which was held on Monday last at the Hotel Roosevelt, New York. The guest speaker, C. W. Chabot, vice-president of the J. B. Savage Company and former advertising manager of the Hammermill Paper Company, discussed the many problems of advertising paper. Mr. Chabot is still connected with the Hammermill organization in an advisory capacity and also acts as advisor to other companies. He declared that the main purpose of advertising should be to further the efforts of the salesmen and expressed the view that the trade papers should be used more extensively and more intelligently. At the close of his inspiring and instructive address he was given a rising vote of thanks.

Eaton-Dikeman Destroyed by Fire

[FROM OUR REGULAR CORRESPONDENT]

LEE, Mass., December 6, 1932—The principal buildings of the Eaton-Dikeman Company, manufacturers of various forms of blotting and other absorbent papers were destroyed by fire Friday night entailing a loss of $300,000 or more with insurance estimated at $250,000. The owners are hopeful of rebuilding; meantime 100 hands are thrown out of work.

The buildings were all of wood and made a spectacular blaze. The fire apparently started from an unknown cause in the center of the plant and wiped out all the equipment as well as the buildings including four paper machines, ragroom, finishing room, machine room, boiler house and a stock of finished products which had been valued at about $100,000.

The plant equipment included two Fourdriniers, one 72-inch and one 89-inch, with auxiliary equipment. Apparatus from neighboring towns worked with the local fire department but were unable to stop the flames.

The plan was one of the oldest in the industry and was originally built in 1826 and bought in 1850 by Platner & Smith. The Eaton-Dikeman Company bought the plant in 1890. The Company has sales office at 156 Sixth Avenue, New York City. The officers of the company are as follows: President, Calvin C. Yates; Vice President and Secretary, Edward A. Sitzer; Superintendent, Olin V. Yates; and assistant Earl W. Dowd.

American Writing Gets Decision

The Federal Court has handed down a decision, November 30, in the case brought by the Holyoke Water Power Company against the American Writing Paper Company, Holyoke, Mass., to recover $29,511 in water power rentals. The action was the result of a tender by the paper company on January 1, 1931, July 1, 1931 and January 1, 1932, of rental payments to the water power company in silver bullion, claiming such right from deeds or agreements dating from 1859. The Court decides in favor of the paper company in this contention, holding that the water power company did not sustain its allegations, failing to establish that a contract under seal, such as stipulated, for payments in silver, had been rescinded by the practice of the paper company in paying in currency. It is believed that the water power company will take an appeal from the decision.

Kalamazoo TAPPI Meets

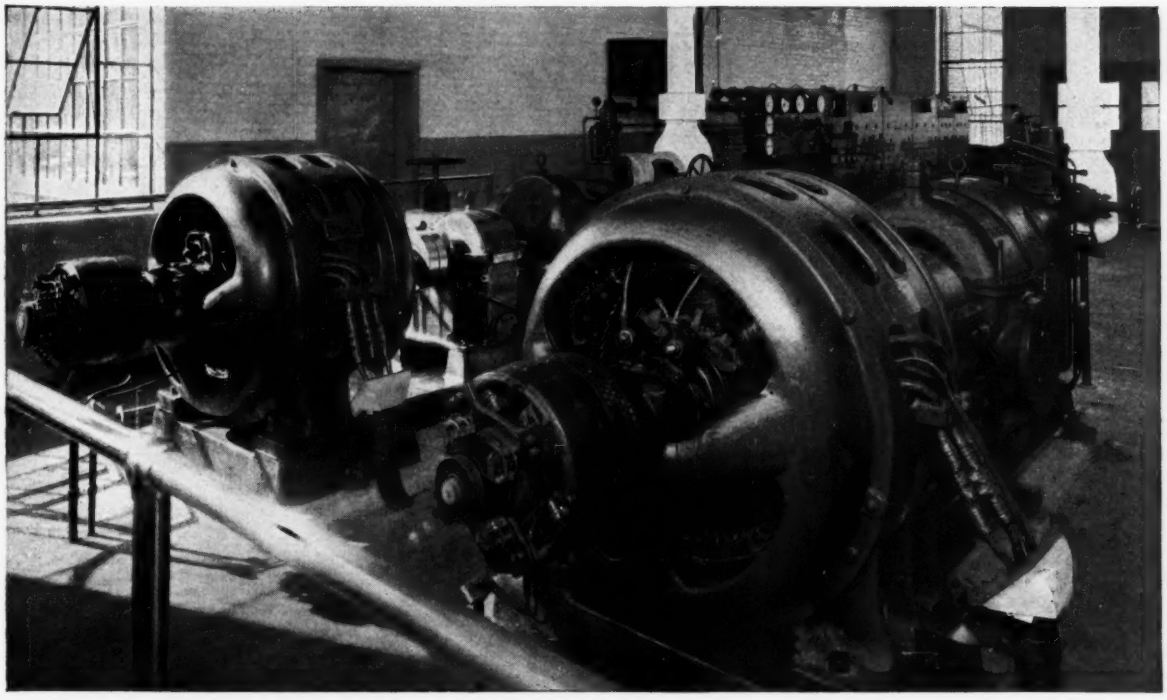
The Kalamazoo Valley Section of the Technical Association of the Pulp and Paper Industry met at the Columbia Hotel, Kalamazoo, Mich., on December 1, 1932, with Harry C. Bradford, Rex Paper Company, chairman, presiding.

The first speaker on the program was Mr. Kerker of Goulds Pump, Inc., Seneca Falls, N. Y. who talked on paper mill stock pumping.

The second speaker was John Bowman of the Kalamazoo Vegetable Parchment Company who discussed chemical tests for pulp and reviewed the different methods used in the industry.

Great Lakes Not Backus-Brooks Unit

The statement that the Great Lakes Paper Company was one of the Backus-Brooks companies, made in the Montreal correspondence of the PAPER TRADE JOURNAL last week, is incorrect.



TERRY

TURBO-GENERATORS for THE INDUSTRIAL PLANT

Terry turbo-generators are built in all sizes up to 1000 KW. They employ Terry multi-stage turbines and may be designed for condensing, non-condensing, mixed pressure or bleeder operation.

Illustrated above is a typical installation in the plant of a leading hat manufacturer. There are two units, each rated 300 KW. The turbines expand the steam from boiler pressure to the pressure of the process system, thereby producing power at a *very low cost* and supplying *clean* low pressure steam.

Let us confer with you as to the most profitable size and type of turbine for your plant.

The TERRY Steam Turbine Co.

TERRY SQUARE, · · HARTFORD, CONNECTICUT

TURBINES, GEARS SHAFT COUPLINGS

T 1006

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Hopewell, Va.—The Hummel-Ross Fibre Corporation is said to be planning an expansion and improvement program at local paper and fiber mill, including installation of new mechanical washing equipment and other machinery. It is understood that work will begin at an early date.

Brooklyn, N. Y.—The Knickerbocker Paper Box Company, Inc., has been organized with capital of $10,000, to take over and succeed to the company of same name, with local plant at 9 White street. Incorporators of the new company include Edward F. Linke, Anthony and Fred L. Sabine.

Longview, Wash.—The Longview Fibre Company has contracted with the Washington Gas and Electric Company, Tacoma, Wash., to furnish high-pressure steam for service at its mill, and plans are in progress for the installation of a steel pipe line from local power station at the mill of the Long Bell Lumber Sales Corporation. The new line will be about 6,000 feet long.

Sandusky, Ohio—In connection with reopening of its No. 3 mill, following shutdown for several years, recently referred to in these columns, the Hinde & Dauch Paper Company, Sandusky, will operate the plant for the production of corrugated cardboard specialties under a new process, using straw largely as raw material. Employment will be given to an initial working force of about 100 persons.

Chicago, Ill.—The Commercial Carton Box Company has been organized to take over and succeed to the company of same name, with plant at 7240 South Park avenue, manufacturer of folding paper boxes and other containers. Organizers of the new company include Byrde E. Levy and Lester L. Bauer.

Crichton, Ala.—Following recent acquisition of plant of Mobile Paper Mills, Crichton, by R. E. Hartman, Tuscaloosa, Ala., and associates, previously referred to in these columns, a new company has been chartered by such interests under the name of the Mobile Paper Mill Company, with capital of $60,000. The incorporators include Mr. Hartman and O. H. Swinson. It is understood that extensive operations are planned at local mill.

Manistique, Mich.—The Manistique Pulp and Paper Company has resumed operations at local mill, following curtailment for a number of weeks, and will give employment to a sizable working quota until further notice.

Newark, N. J.—Fire recently caused damage at the plant of the Progressive Paper Box Company, 341 Jelliff avenue. An official estimate of loss has not been announced, but is reported as slight.

Bogalusa, La.—The Bogalusa Paper Company has foundations well under way for two new units at its mill, recently referred to in these columns, and is awarding contracts for work and equipment in connection with its expansion program. A new power station is under way, for which boilers will be furnished by the Babcock & Wilcox Company, New York, N. Y., and turbo-generators by the Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa. The General Electric Company, Schenectady, N. Y., has secured a contract for electric drive for paper machines, as well as small motors and kindred equipment. An award for improvements and changes in papermaking machines has been let to the Black-Clawson Company, Hamilton, Ohio. The entire project is reported to cost approximately $1,250,000, with equipment. The United Engineers and Constructors, Inc., 112 North Broad street, Philadelphia, Pa., is engineer for the work.

Boston, Mass.—The Sherman Paper Products Corporation, 419 Summer street, has arranged an expansion program for increased operating facilities. Exact character of development has not been announced.

Rocky Hill, Conn.—The Belamose Corporation, manufacturer of cellulose rayon products, has adopted a capacity operating schedule at its local mill, with regular working quota in all departments.

New Companies

New York, N. Y.—The Supreme Card and Paper Corporation has been incorporated with a capital of 100 shares of stock, no par value, to manufacture and deal in card and paper stocks. Abraham H. Kutno, 3100 Ocean Parkway, Brooklyn, N. Y., is one of the principal incorporators. Max M. Nassau, 11 West Forty-second street, New York, attorney, is representative.

Evansville, Ind.—Temple Company, Inc., has been incorporated with a capital of $15,000, to manufacture paper and pulp products of various kinds. The incorporators are J. Temple, Ota Hay and Edward M. Schmahl, all of Evansville.

New York, N. Y.—The Birnbaum Supply Corporation, Bronx, has been organized with a capital of 100 shares of stock, no par value, to deal in paper products of different kinds. The company is headed by Meyer Birnbaum, 876 Southern boulevard, New York.

Burlington, N. J.—The Molded Plastics Corporation has been incorporated with a capital of 100 shares of stock, no par value, to manufacture cellulose products. The incorporators are Harry Lewis and Irving Fellerman, both of New York, N. Y. The company is represented by William Kessler, 220 West Forty-second street, New York, attorney.

New York, N. Y.—The Sylvester Barone Company, Bronx, has been incorporated with a capital of $20,000, to deal in paper products and paper mill supplies. The company is headed by John and Sylvester Barone, 1135 Hoe avenue, Bronx.

Don't Let

ruin your economy program

With the arrival of cold weather, some mills will reach the end of the savings in operating costs that they had secured during the past summer. Savings that are still needed—must they be swallowed up now by the added cost for extra steam? Not where there still exists the opportunity to utilize heat that is now being wasted. It is entirely possible for such mills to maintain regular heating efficiency with greatly reduced consumption of steam, thus preventing excessive steam costs from ruining their economy program. Look into the possibilities. Our engineering staff will gladly make recommendations for your particular situation. Let our experience help you to save money.

Heating, Ventilating, Drying Equipment

Briner Economizers — Vapor Absorption Systems — Grewin High Pressure Ventilation — Grinder Exhaust Systems — Machine Room Systems — Hoods Ducts — Blowers — Fans — Unit Heaters. Descriptive Literature will be sent on Request. Write our office nearest you.

J. O. ROSS ENGINEERING CORPORATION

201 North Wells Street CHICAGO — Main Office—122 E. 42nd Street NEW YORK — 414 Lewis Bldg., PORTLAND, ORE.

ROSS ENGINEERING OF CANADA, LIMITED

ROSS SYSTEMS
HEATING—VENTILATING—DRYING

PAPER TRADE JOURNAL
ESTABLISHED 1872

Published at 34 North Crystal St., East Stroudsburg, Pa. Executive and Editorial Offices, 15 West 47th St., New York, N. Y.

Henry J. Berger
Editor

Ronald G. Macdonald
Editor Technical Section

Herbert J. Laughton
Associate Editor

Thomas J. Burke, C. A.
Editor Cost Section

Lynne M. Lamm,
Washington Correspondent

Price, Per Copy, 10 Cents — United States, Per Annum, $4.00
Canada, including tax, $7.50; Foreign Countries in Postal Union, $6.00

Member Audit Bureau of Circulations

Vol. XCV New York, December 8, 1932 No. 23

We have moved to
15 West 47th Street,
New York City
Our new telephone number is
Bryant 9-0860

PUBLIC AID NEEDED TO STABILIZE FOREST SITUATION

Public measures designed to stabilize the basic forest situation and adjust forest use to the resource are recommended by Chief Forester Robert Y. Stuart, in the annual report of the Forest Service, U. S. Department of Agriculture.

Highly unbalanced conditions have resulted from public policies consisting too largely of inaction and reliance upon laissez faire to find and apply the necessary correctives, the report said.

"In comparison with the need, far too little is being done to facilitate and encourage private forest management; public policies of forest acquisition and administration are still exceedingly inadequate; and public restraint of injurious private practices through regulatory requirements has barely begun," the report says. "While policies and measures designed to promote conservation have had some effect on the balance, they have been insufficient to offset the powerful and relentless pressure of economic forces created by the pursuit of private profit. These offsetting public policies are being enlarged, but not adequately, and a demand is now developing for diminished public activities, in the name of economy and on the ground of overexpansion of Governmental function. The lumber industry, itself in the grip of economic forces which it appraises as beyond its own power to control, is seeking public aid. It desires this for the purpose of obtaining a better balance between its output and markets and lightening the burden imposed by overinvestment and overexpansion. The lumber industry realizes that if public aid having any prospect of adequacy for its effective relief is to be forthcoming, this aid must comprise measures designed not solely for the stabilization of the industry, but designed also to stabilize the basic situation and the forces which are leading on to still greater unbalance in the adjustment of forest use to the forest resource."

The basic problem, according to the Chief Forester, is one of maintaining the power of the country's forests to grow continuously the kinds and quantities of wood that our economic life will require.

"The condition of unbalanced forest areas and volumes both nationally and regionally; the overcutting of second growth; the understocking of large areas of young growth and the compete denudation of 60,000,000 acres of land because of fire and bad logging practice; the replacement of valuable species with those of no or little present usability; all these things and more find their result in marked impairment of the economic and social values which depend upon our forest resources," Major Stuart said. "This dependence relates not only to the commodity value of forests, but also to their service in the fields of watershed protection, recreation, fish and game conservation, and scenic values."

Revised estimates, pending the completion of the nation-wide forest survey now in progress, place the area of forest land in the United States suitable for the production of commercially valuable timber crops at 496,000,000 acres. Only three-eighths of this area, however, now bears saw timber. One-fourth bears cordwood, and the remainder ranges from fully stocked areas of young growth down to bare land. The area of forest land is increasing, but due in part to abandonment of cultivated and pasture lands, the condition of forest growth on much of it is such that it can not be counted on as a source for meeting national timber needs for many years.

The report showed that the area of national forests was increased during the last fiscal year by 573,004 acres, that the net area on June 30 was 161,360,691 acres. Two new national forests—the Osceola in Florida and the Green Mountain in Vermont—were established during the year by presidential proclamation.

The record of protection and administration of the national forests, accomplishments in forest research, and the fire protection and reforestation work carried on in cooperation with the States during the fiscal year are reviewed in the report.

CHEMICAL EXPOSITION IN 1933

The Fourteenth Exposition of Chemical Industries is now definitely scheduled for the week of December 4, 1933, according to a recent announcement by Charles F. Roth, manager. The announcement by Mr. Roth was made in his capacity as vice-president of the International Exposition Company which has organized and directed the presentation of the Chemical Exposition since the first one was held in New York City in 1915. Already plans

for the next show, more accurately designated as the Fourteenth Exposition of Chemical Industries, have been under way for some months, in line with previous plans to hold the event early in 1933.

Thoughtful consideration, of the dates previously scheduled for the exposition, by a number of exhibitors and by the management, has resulted in a decision to postpone it to the week of December 4, 1933. The selection of these dates will bring the exposition at a time co-incident with the annual meetings of the American Society of Mechanical Engineers and of the American Society of Refrigerating Engineers, the members of which, it is believed, will welcome the opportunity to attend the exposition. They will furnish an additional audience of buyers. It is probable also that certain of the national chemical organizations may arrange New York meetings to occur during the same week.

The new dates will allow exhibitors more time to plan and prepare their exhibits, possibly more latitude in their plans through coming at a time when more generous outlay, both of time and money, on exhibits may seem more justified. Decision of the management on the dates December 4-9, 1933, indicates the selection of a week which is good in many ways. Viewed broadly this selection seems bound to insure a greater number and more enthusiastic exhibitors, a larger attendance, and more trading on a larger scale.

Scankraft Formed at Stockholm

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 7, 1932.—Kraft paper manufacturers of Norway, Sweden, and Finland have reached an agreement for regulating production and exports according to Commercial Attache M. H. Lund at Oslo.

Prices have also been mentioned, although it is more likely that an organized curtailment of production will automatically strengthen the market. The total production involved is approximately 250,000 metric tons, 40,000 tons for Norway, 180,000 tons for Sweden, and 30,000 tons for Finland. The new combination will operate under the name "Scankraft" with headquarters in Stockholm. It is hoped that the decision of the Scandinavian kraft producers to cooperate on production and prices will pave the way for a reduction in the British duty of 25 per cent on imported kraft the report says.

Corinth Mill Augments Working Force

[FROM OUR REGULAR CORRESPONDENT]

CORINTH, N. Y., December 5, 1932.—Increased production at the local branch of the International Paper Company has resulted in enlargement of its working force within the past few weeks. It is understood that a number of experienced workers formerly employed by the Union Bag and Paper Company at Hudson Falls have been hired, while the force is also comprised of residents from other neighboring villages. Improved market conditions are said to be responsible for augmenting the force which will be maintained as long as present conditions remain.

Quebec Premier Warns Paper Companies

MONTREAL, Que., December 5, 1932.—While conferences are still proceeding between news print executives here in the attempt to arrive at a co-operative basis in the matter of news print production and prices, the Hon. L. A. Taschereau, premier of Quebec, has interjected himself into the situation with a stern warning to the companies concerned that if they do not come to an agreement, the governments of Quebec and Ontario would take action.

Premier Taschereau made this announcement in a public speech here, introducing the subject by saying: "The pulp and paper problem is one common to Ontario and Quebec, and unless the pulp and paper people straighten out their affairs they will find action taken by the two governments to settle the matter, for it is not proposed to permit the forests to be depleted to make paper to be sold below cost."

Mr. Taschereau said he had no authority to speak for Ontario, but in the past the two Governments had been in agreement on important matters. The Premier quoted the figures of the pulp and paper industry in 1920 and 1930. In 1920 there were 100 mills in Canada; in 1930, 109 mills. The value of production in the decade had risen from 100 millions to 215 millions. The number of employees had increased from 31,000 to 33,000, an increase of only 2,000. The wage bill in 1920 was 45 millions and 10 years later it was still only 45 millions—no increase. The capital employed was 22 millions in 1920 and 714 millions in 1931, or 35 times as great. It was not the Government which had increased the capital, said the Premier. The fault was with the mill operators themselves, and he must repeat what he had said recently, that there were too many financiers in the business and not enough paper makers. "When you see in ten years production doubled, the wage bill the same, and the capital multiplied 35 times, you know where the blame lies. Where is the remedy and what is the cure? It is in the hands of the industry itself.

"Let these people not look to the Government for the remedy and cure. If the gentlemen of the industry do not take heed, the governments of Ontario and Quebec may have to look into something. I will tell you we are not going to allow our forests to be depleted for paper to be manufactured below cost. I am not ready to speak for Ontario, but the problem is the same there, and the remedy is the same there. We have often had perfect understanding with Ontario, and I believe in this score we can have perfect understanding and see that our forests are not depleted for the benefit of those who have created a capitalization of 718 millions in their industry when perhaps it is not worth 25 millions."

The above statement has created a great impression, especially in financial circles. The statement of the Premier that the industry here has been capitalized at $718,000,000 when perhaps it is not worth $25,000,000 is taken to indicate that further wholesale reorganization of capital structures are likely to be one of the outcomes of the present negotiations.

St. Regis Ships Paper Cargo

OGDENSBURG, N. Y., December 5, 1932.—Joseph A. Quinlan, traffic manager of the St. Regis Paper Company, spent the past several days here in connection with the loading of a cargo of paper which is being sent through the Great Lakes waterway to customers in the Middle West. The vessel was loaded quickly and it is probable that other shipments will follow in the near future.

Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

Pulp and Paper Industry Literature Review

Abstracts of Articles and Patents Compiled by the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson, C. E. Peterson and Clarence J. West, Chairman

The National Research Council, 21st and B Street, Washington, D. C., through Dr. Clarence J. West, extends the courtesy of its photostat service to members of the Technical Association of the Pulp and Paper Industry. Owing to a limitation of personnel and time, this service cannot be extended to non-members.

The charge for the photostat service is: 9 x 11 inches—18 cents per page, 18 x 11 inches—35 cents per page, 22 x 18 inches—70 cents per page, minimum charge, 50 cents.

Payment should be made upon receipt of invoice.

Copies of United States Patents can be obtained from the United States Patent Office, Washington, D. C., for 10 cents each. Send currency, not stamps.

Alkaline Process

Method and Apparatus for Manufacturing Products from Fibrous Material. Max Skolnik assignor to Insolo Holding Co. U. S. pat. 1,865,649, July 5, 1932.—Material such as straw pulp is placed in a basket which is introduced into a boiler and cooked; the basket is removed from the boiler and its contents delivered on a sloping shelf which feeds it through crushing rollers into a pulp mixer. From the mixer the pulp passes through a measuring valve to a multiple-die multi-stage press of special design where it is formed into articles of desired shape.—A. P.-C.

Production of Pulp. Harold T. Ruff, assignor to Mead Research Engineering Co. U. S. pat. 1,864,220, June 21, 1932.—Fibrous material such as wood, straw or grass is treated with a halogen such as chlorine and a fluid such as air is then passed through the treated material to drive out excess halogen, and the effluent of mixed fluid and halogen is passed through additional raw material to employ the excess halogen in the treatment. —A. P.-C.

Pulping Process. Arthur E. Millington. U. S. pat. 1,853,774, April 12, 1932.—Chipped wood is softened by cooking with a 3½° Baumé soda ash solution and is defibered by rod-milling. An arrangement of apparatus for handling the material is described.—A.P.-C.

Manufacture of Cellulose and the Like. W. W. Triggs assignee of L. Lemberger. Brit. pat. 372,425, Feb. 14, 1931.—Cellulosic material is digested in a battery of digesters which are arranged side by side or one above another to form one communicating vessel open at both inlet and outlet, and through which the material is passed continuously without mechanical conveyors. Means are provided for the automatic regulation of the supply of raw materials and chemicals, of the level of the liquid or material in the digesters, and of the removal of digested cellulose and chemicals at the end of the treatment.—A. P.-C.

Can Sulphate Pulp Plants Be Made Self-Sustaining with Respect to Fuel at a Reasonable Installation Cost? Albe Nielsen. Svensk Pappers-Tidn. 35:45-57 (1932); C. A. 26:3107.—Four recovery systems are described and compared.—C. J. W.

Investigation of the Soda and the Sulphate Digesting Processes. III. Behavior of Alkali. Erik Hägglund and C. Nyman. Svensk Pappers-Tid. 34:886-889 (1931); C. A. 26:3107.—Some previous determinations were repeated, reducing the 25.2 per cent of active alkali, calculated on the weight of the wood, to 20 per cent but keeping all other conditions the same as in the previous determinations. The time required to yield defiberable pulp of 5-6 per cent lignin content rose to 3 hours at 170°. Pine wood was used. Preparation of pulp from spruce required about 2 hours. Pulp from spruce was stronger than that from pine and was more easily hydrated. —C. J. W.

Old and New Problems in the Furnace Room. L. Gloersen. Pappers-Travärutid. Finland 14, no. 1:25-26, 28-30, 32-33 (Jan. 1, 1932); Bull. Inst. Paper Chem. 2: 215.—After briefly referring to several rotary furnace types in use, the author describes improvements which have been carried out in Finnish sulphate mills, according to his instructions. A special gas conduit, system Gloersen, is described in detail.—C. J. W.

Modern Alkali Recovery Systems. A. B. Gregg. Paper Trade J. 95, No. 5, 29-33 (Aug. 4, 1932).—A discussion of modern practice, dealing particularly with latest developments and comparing rotary-evaporated ash units with spray-type units.—A. P.-C.

Making "Hard" Sheet of Straw Paper with Lime. H. P. Bailey. Paper Trade J. 95, No. 7, 20, 22 (Aug. 18, 1932).—A "hard" straw paper sheet can be made by cooking with lime and allowing the cooked straw to age. —A. P.-C.

Digester Cooking Systems. Albert B. Gregg. Paper Ind. 14, 359-361 (Aug., 1932).—A brief practical discussion of direct and indirect cooking systems for soda and sulphate digesters.—A. P.-C.

Note the *Bottom* Blade Mounting › ›

—IT'S DIFFERENT

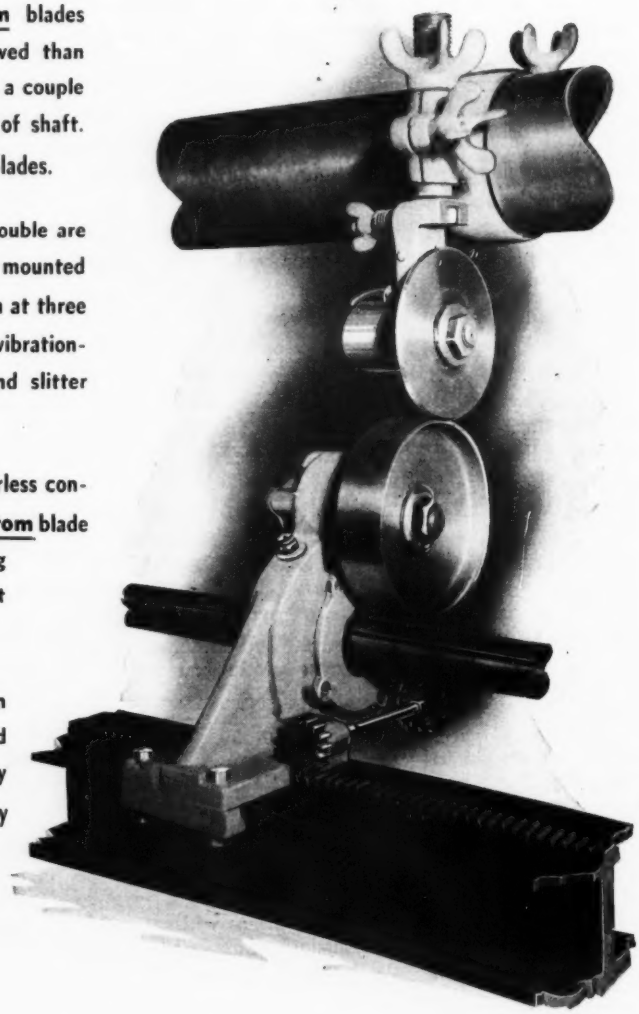
ACCESSIBLE for YOUR CONVENIENCE

Under the usual arrangement of mounting **bottom** blades directly on shaft, a dull blade is more easily observed than cured. It is necessary to dismount shaft, and possibly a couple of blades, to replace a dull or nicked blade midway of shaft. Hence the tendency to postpone regrinding bottom blades.

In "M & W" Ball Bearing Slitters, these causes of trouble are avoided. The **bottom** blades, instead of being mounted directly on shaft, are mounted above it and gear-driven at three times shaft speed. This permits using slow-running, vibrationless shaft. Both drive shaft (which is splined) and slitter spindles run in annular ball bearings.

This gives a true-running, almost frictionless and wearless condition with minimum need for lubrication. Any **bottom** blade can be replaced in a moment or so, without disturbing shaft or any other blade, merely by undoing end nut holding it on its shaft.

To complete the improvement, top blades also run in ball bearings. Thus the chance of frictional drag, and of wabble due to worn bearings, is eliminated. Any top blade is replaced, like any **bottom** blade, by removing one nut.



- SAVES CLAIMS FROM PRINTERS DUE TO DUST AND BAD EDGES.
- PREVENTS BLADE WABBLE THUS ELIMINATING SLITTER CRACKS.

Easy Blade Removal

Off and on in a Jiffy . . . Just undo the Nut

THE MOORE & WHITE COMPANY

Paper Mill Machinery

FIFTEENTH ST. AND LEHIGH AVE. PHILADELPHIA, PA.

Sulphite Waste Liquor for Making Fuel Briquets. Gustav Komarek assignor to Berwind Fuel Co. U. S. pat. 1,860,465, May 31, 1932.—Briquets are provided with a deliquescent abrasion-resistant coating by separately applying a deliquescent material such as calcium chloride and an abrasion-resisting film-forming substance such as sulphite waste liquor to the surface of the briquet without substantially reducing the deliquescence of the coating. —A. P.-C.

Bleaching

Study and Evaluation of Kraft Bleaching Process. Francis J. Curves. Paper Trade J. 95, No. 7, 32-37 (Aug. 18, 1932).—It is concluded that single-stage lime-chlorine bleaching is very effective and beneficial as to strength, color and alpha-cellulose content, and that the most rapid and economic single-stage bleaching is the regular hypochlorite bleach which yields optimum results with a chlorine per cent basis which yields maximum "bleach efficiency" as determined from the bleach color relationship.—A. P.-C.

Beating

Modernization of the Hollander Beater. A. A. Bush. Paper Trade J. 95, No. 6, 41-42 (Aug. 11, 1932).—A brief outline of recent developments in beater construction, bringing out more particularly the chief features of the latest type of E. D. Jones beater.—A. P.-C.

Beating by Impact. Arthur B. Green. Paper Trade J. 95, No. 9, 47-48 (Sept. 1, 1932).—Semi-commercial scale tests on unbleached sulphite have shown that the necessary velocity to obtain violent impact can be developed at a low expenditure of power. The result is an exceptionally high development of tearing and folding strength, an increase in bursting strength which is high but not proportionally so, while the stock is not made slower than in ordinary open-tub beater treatment.—A. P.-C.

A Physical Theory of the Beating Process. W. Boyd Campbell. Paper Trade J. 95, No. 8, 29-33 (Aug. 25, 1932).—Essentially, the hypothesis put forward is that the bonding of fibers in a sheet is due to the beating causing a greater facility of contact between fibre and fibre which, being drawn into contact by surface tension effects, unite by their mutual molecular attraction or crystallizing force.—A. P.-C.

Breaker Beater. Henry S. Wahlberg. Fr. pat. 726,697.—A number of rings of T-shaped cross section are provided around the roll. Notches are cut in the rings to form teeth, which are bent alternately to the right and left.—A. P.-C.

Dry-Broke Beater. Henry Liebeck assignor to Scott Paper Co. U. S. pat. 1,874,553, Aug. 30, 1932.—The machine consists of a tank divided by a horizontal partition into an upper and a lower compartment which open into each other at the ends. The lower compartment is divided transversely by means of a contracted opening. The dry broke is fed into the top compartment at one end and is circulated, in suspension in water, by a paddle wheel located in the opening between the top and bottom compartments at the same end as the broke inlet. A disintegrating propeller is mounted in the contracted opening in the lower compartment.—A. P.-C.

Refiner. Ludwig H. Wessel and Homer N. Booker assignors to Hermann Manufacturing Co. U. S. pat. 1,874,676, Aug. 30, 1932.—The plug is constructed of a core and an outer sleeve fitting over the core. The sleeve carries a number of bands, each of constant diameter and the knives are provided with an undercut groove having a surface which can slide into wedging position beneath the bands.—A. P.-C.

Breaker Beater. David B. Whistler assignor to The Black-Clawson Co. U. S. pat. 1,868,299, July 19, 1932.—The beater is provided with a junk remover, comprising one or more units, each of which consists of an outward cylindrical extension of the beater tub, forming a well which extends substantially below the beater tub bottom and which communicates with the tub by downwardly inclined recesses. The junk which accumulates in the well is removed by means of a feed screw which is sprayed to remove the adhering good fibres. At the side of the beater tub and communicating therewith is a tank for receiving the waste paper bales and breaking them up by means of sets of blades mounted on parallel shafts, the tank being provided with a junk remover which eliminates the larger portion of the junk before the stock passes into the beater tub.—A. P.-C.

Beater Roll. William V. Phenie assignor to Midwest-Fulton Machine Co. U. S. pat. 1,862,495, June 7, 1932.—In order to obtain a universally adjustable locking wedge which will automatically compensate for irregularities of manufacture and changes of shape of the fly bars, either the fly bar or the opposing inner wall of the receiving slot of the beater-roll head is formed with a curved concave surface to receive a corresponding face upon the interposed locking wedge. The latter is formed with a substantially flat bearing surface on one side and an opposite convex bearing face on the other side, so that it is capable of slight rocking adjustment to seat uniformly between the fly bar and slot.—A. P.-C.

Sizing

Starch as paper sizing. Herman L. Berg. Papir-J. 19-175-177 (1931); C. A. 26:4716. The physical and chemical properties of starch are reviewed and methods of manufacturing sizings are outlined.—C. J. W.

Sizing Paper. Papeterie 54, 646-650, 698-702 (June 25, July 10, 1932).—From a brief discussion of the theory and mechanism of sizing the author concludes that the size should contain as high a proportion as possible of free rosin in the proper state of subdivision. Such a size may be obtained by melting 100 kg. of rosin, gradually adding (with stirring) 7 kg. of casein dissolved in 35 l. of water and 2 kg. of caustic soda, stirring for an additional 30 min., and diluting to the desired concentration by the gradual addition, with stirring, of water at 70° to 80°C. Sizing is carried out by addition of alum to the stock, either before or after addition of the size to the beater, to a pH of 5.5.—A.P.-C.

Method of Rendering Paper Impermeable. Antoine C. Gillet. Fr. pat. 727,748, Feb. 20, 1931.—Rosin sized paper is treated, either before or after complete drying, with a volatile solvent for rosin and resinate, and the solvent is recovered.—A.P.-C.

Process for the Manufacture of Resinous Soaps. Cyprien Gillet. Fr. pat. 711,635, May 22, 1930; U.S. pat. 1,853,807, April 12, 1932.—A resinous soap of high covering power for sizing paper is prepared by saponifying the rosin in two distinct steps. The first is with a mixture of sodium carbonate and sodium bicarbonate in the proportion of 2 to 3, in amount sufficient to saponify a part only of the rosin. The second is with ammonia in amount sufficient to saponify the part unsaponified in the first stage.—A.P.-C.

Dyeing

Dyeing of paper. Dotzel. Pappers-Trävarutid. Finland 14:500-502, 504-505, 540, 542-543, 568, 570-572 (July 15, 31, Aug. 15, 1932); Bull. Inst. Paper Chem. 3:9.—A general review of paper dyeing and the different dyestuffs in use for this purpose, their special suitabilities and deficiencies. Beater dyeing is chiefly dealt with, while dip-

Mechanical Process

Comparative investigations of groundwood pulp obtained from pocket grinders and continuous grinders, system Voith. S. Ahlin and O. Swensson. Svensk Pappers-Tidn. 35, no. 9:310, 313-315; no. 11:347-348, 351-352; no. 11:376, 379-380, 385; no. 12:421-422, 425-427 (May 15, 31, June 15, 30, 1932); Bull. Inst. Paper Chem. 2:325.—The investigations were carried out in order to determine the influence of the pressure factor upon the quality of the groundwood pulp produced in a 4-pocket grinder and a continuous grinder, system Voith. The burring, brand of stone, the concentration in the pit and the nature of the wood were kept as constant as possible. An increased pressure resulted in higher freeness and lower S. R. number, higher percentage of wood flour, lower bursting strength and breaking length, a larger quantity of pulp and a lower power consumption per ton of pulp. The authors found besides that the pocket grinder yields the best pulp according to micro-photographs and the "Faser-kino". Strength tests on sample sheets revealed that breaking length and bursting strength are higher in a pulp produced on continuous grinders. —C. J. W.

Process for Extracting Water-Soluble Substances from Fibrous Raw Materials and Simultaneously Forming the Fibrous Materials into a Web. Harold R. Murdock assignor to The Champion Fibre Co. U. S. pat. 1,861,933, June 7, 1932.—The process comprises the following steps: (a) grinding the raw material in presence of aqueous liquid, (b) leaving the ground material in prolonged contact with the liquid to promote solution of the water-soluble substances, (c) at least partially separating the ground material from the liquid, (d) subjecting the ground material to prolonged treatment with an aqueous liquid, (e) separating the fibres from the liquid and simultaneously forming it into a paper web and washing the latter while retaining the separated aqueous solution and the washings, (f) using the portion of the liquid from steps (c) and (e) as aqueous liquid in one of the steps (a) and (b) and concentrating the balance of the liquid to form a concentrated aqueous extract, (g) using the water separated in (f) as at least part of the aqueous liquid in one of the steps (b) and (d).—A. P.-C.

Tool for Dressing Pulp Stones. Albert Elsenhans. U. S. pat. 1,871,448, Aug. 16, 1932.—The hub of the tool is formed of moldable material, in which are embedded sheets of flexible, thin, spring steel in such a manner as to conform to high-pitched helicoidal surfaces, the outer edges of the steel sheets lying on a cylindrical periphery so as to form invariably sharp cutting edges extending in helical lines.—A. P.-C.

Pulping Process. John Traquair and Francis G. Rawling assignors to The Mead Research Engineering Co. U. S. pat. 1,869,082, July 26, 1932.—Chipped wood is rod-milled and then subjected to cooking by known process. —A. P.-C.

Sulphite Processes

Theory of the Sulphite Cooking Process. E. Hägglund. Svensk Kem. Tid. 44, no. 6:163-169 (June, 1932); Bull. Inst. Paper Chem. 2:337.—The decomposition of lignin takes place in two stages. The lignin in the solid phase is sulfonated and the lignosulphonic acids are converted into the soluble form. The question is whether this last stage is a chemical reaction like hydrolysis or whether the lignin is dissolved out. On the basis of several experiments, which are described, Hägglund decides that it is a chemical reaction. The hydrogen ion concentration is also an important factor.—C. J. W.

Sulphite Pulping Process. Jerry W. Stevens and William H. Kenety assignors to Chemipulp Process, Inc. U. S. pat. 1,860,755, May 31, 1932.—The gas and liquor relief pipes are connected to a separator through a common inlet. The gas from the separator passes to an acid accumulator. The piping is arranged so that the gas may be either injected directly into the accumulator or may be passed through a coil inside the accumulator which acts as a heat exchanger.

Temperature Curves and the Sulphite Cook. Ragnar Monnberg. Paper Trade J. 95, No. 9, 39-43 (Sept. 1, 1932).—Experimental data is presented to show that the temperature curve recommended by Miller and Swanson (heating to 110°C. in 2.5 hrs., and then straight-line rise in temperature to 148°C. after a total period of 11 hrs.) embodies no special advantages when the manner in which the temperature is raised is considered alone, and that it is possible to cook a better stock by proper application of fundamental principles of cooking than by an imitation of a recommended "optimum schedule".—A. P.-C.

Sulphite Acid Accumulator. John Strondlund assignor to Chemipulp Process, Inc. U. S. pat. 1, 862,243, June 7, 1932.—Instead of using an accumulator consisting of two or more separate interconnected receptacles, a single receptacle is used which is divided into two or more compartments by one or more horizontal partitions provided with suitably located openings through which the compartments communicate with one another.—A. P.-C.

Cyclic Process of Fiber Liberation. George A. Richter assignor to Brown Co. U. S. pat. 1,864,619, June 28, 1932.—Wood is digested in an alkaline solution of sodium sulphite. Pulp is separated from the spent liquor. The inorganic content of the spent liquor is smelted and its combustible content is burned; smelted inorganic compounds are recovered and combustion products from the smelting operation are passed in contact with like spent liquor for recovery of the soluble content in the combustion products.—A. P.-C.

Sulphite Acid Accumulator. John Strondlund assignor to Chemipulp Process, Inc. U. S. pat. 1,862,243. —Wood is cooked in a dilute non-acid sulphite solution and then cooked, to complete fiber liberation, in a more concentrated non-acid sulphite solution.—A. P.-C.

Manufacture of Crude Spirits. Bengt Thorbjornson. Tek. Tid. Uppl. C, Kemi, 61:17-20, 25-28, 37-40 (1931); C. A. 26:4906.—The manufacture of crude alcohol from sulphite liquors from the sulphite process and from potatoes is described together with a preliminary discussion of the chemical reactions which take place during the alcoholic fermentation of starch and sugar.—C. J. W.

Utilization of Waste Liquors With Consideration of the Latest Results of Lignin Investigations. C. Harnist. Chem.-Ztg. 56, no. 54:529-531; no. 56:550-551 (July 6, 13, 1932); Bull. Inst. Paper Chem. 2:337.—The author describes some of the uses of waste liquors. Their use for fertilizers and tanning materials is especially mentioned. The ideas of several investigators on the structure of lignin are given. Some mention is made of the tannin character of lignin and its occurrence in living and dead vegetation.—C. J. W.

Utilization of Sulphite Pitch as Pulverized Fuel. E. Blau. Chem.-Ztg. 56, no. 66:649-650 (Aug. 17, 1932); Bull. Inst. Paper Chem. 3:24.—Sulphite waste liquor is concentrated in evaporators and dried on rolls to a moisture content of 6-8 per cent. The resulting powdery pitch has a heating value of 3600-3800 calories per kilogram. A few of the special furnaces for utilizing this dried pitch in addition to other fuel are described.—C. J. W.

ping and coloring by coating are only mentioned. Matching colors and two-sidedness of paper are also discussed. A short section is devoted to fancy colored papers and to specialty coloring by special purposes, such as marbled papers, mottled papers, paper colored on one side, relief papers, safety papers, etc.—C.J.W.

Color Specification in the Pulp and Paper Industry. W. B. Van Arsdel. Paper Trade J. 95, No. 6, 32-35 (Aug. 11, 1932). A discussion of the problem, deducing the conditions which must be fulfilled by a method of colorimetry which would fully satisfy the requirements of the pulp and paper industry, and showing that no method so far devised is entirely satisfactory.—A.P.-C.

Coating Materials and Fillers

Loaded Paper and Its Ash. A. Vander Stichel. Papeterie 54, 702-707 (July 10, 1932).—A brief discussion of the relationship between the amount of filler used in the furnish and the ash content of the finished paper, bringing out the advantages of using the ash content for determining the amount of filler to be used in the furnish under given mill conditions.—A.P.-C.

Manufacture of Loaded Paper. James J. O'Connor assignor to The Mead Pulp and Paper Co. U. S. pat. 1,868,291, July 19, 1932.—The filler is made into a flowable mixture with a definite proportion of water and is added to the furnish at some point between the paper machine chest and the paper machine preferably at the rifflers. The white water from the wire pit is sent to a save-all, *e.g.*, of the Oliver or United type, to which is also fed a small amount of stock drawn continuously from the machine chest, to form an effective filter mat on the save-all and retain the fine particles of fiber and filler in the white water. The material recovered at the save-all is delivered directly to the machine chest.—A.P.-C.

Effect on Excessive Temperatures and Time of Drying of the Solubility of Casein. E. O. Whittier and S. P. Gould. Ind. Eng. Chem. 24, 1081-1082 (Sept. 1932).—Very long drying at 51° to 55°C. (123.8° 131.0°F.), the usual commercial drying temperatures, does not affect the solubility of casein, and adherence to these customary drying temperatures is therefore recommended.—A.P.-C.

Pigment for Coated Paper. Vincent A. Lauderman assignor to The Champion Coated Paper Co. U. S. pat. 1,863,663, June 21, 1932.—Lime sludge is converted into a pigment suitable for use in coating paper by neutralizing substantially all the free alkali by the use of aluminum sulphate and grinding.—A.P.-C.

Analysis and Testing

Equipping Laboratories for Constant Temperature and Humidity. Sigurd Samuelsen and Erik Stephansen. Papir-J. 19: 211-214 (1931); C. A. 26: 4715. Apparatus for maintaining small paper testing rooms at 20 ± 0.2° and 65 ± 1 per cent relative humidity are described. Ice is used for cooling.—C.J.W.

Apparatus and Methods for Testing Wood Pulp and Paper Pulp. Chr. Anker. Papir J. 19:69-71 (1931); C. A. 26: 4714.—A brief description of apparatus and methods employed at the Research Institute of the Norwegian Paper Industry.—C.J.W.

The surface of newsprint. Sigurd Samuelsen and Erik Stephansen. Papir-J. 19:193-196 (1931); C. A. 26: 4716.—The degree in which different papers wear down type metal is measured by a device in which a pencil composed of red lead and paraffin travels in a spiral path over a given area of paper. The weight of material deposited on the paper is an index of the wear on the type metal. A paper which wore down the type metal so rapidly that only 6,000-7,000 clear impressions could be made took up 125 mg. of the lead-paraffin mixture on 720 square centimeters, while a paper which gave clear reproductions after 30,000 impressions took up only 5 mg. on the same area. Best results were obtained with pencils of one square centimeter cross section and 1-2 per cent of paraffin.—C.J.W.

Investigation Concerning the Degree of Acidity and the Copper Number with Special Reference to Swedish Document Paper. Svensk Pappers-Tidn. 35, no. 12: 410-412, 415-416, 421; no. 13: 444-446, 449-450 (June 30, July 15, 1932); Bull. Inst. Paper Chem. 2: 330.—The Swedish Government Testing Institute, in an investigation of the durability of Swedish document paper, made tests on the degree of acidity in the paper by determining the hydrogen ion concentration as compared to the titration of the acid and the copper number according to the Schwalbe-Braidy method. Acid number and hydrogen ion concentration are not always in direct ratio. Light increases the acid number more rapidly than when paper is kept in the dark. It also changes the copper number, even if diffuse. Samples for comparative determinations should therefore be protected from exposure to light.—C.J.W.

Recent Theories of Sheet Formation and the Strength of Paper Sheets. K. Haug. Papir-J. 20, no. 7; 69-71; no. 8: 83-85 (May 7, 31, 1932); Bull. Inst. Paper Chem. 2: 308.—The strength factor in paper sheet formation is discussed from the angle of "lattice forces," which represent influences between oppositely charged units.—C.J.W.

Some Paper Properties. P. M. Hoffman Jacobsen. Svensk Pappers-Tidn. 35, no. 8: 267-268, 273-274, 277-278 (Apr. 30, 1932); Bull. Inst. Paper Chem. 2: 289.—A review of the principal physical paper properties, which should be determined at 20°C and 65 per cent relative humidity: machine and cross direction, breaking length, zero breaking length, pulp strength, breaking length of the fibers proper, paper structure (felting capacity), folding endurance, Mullen and stiffness.—C.J.W.

Breaking Length and Bursting Strength in Pulp Testing. Svensk Pappers-Tidn. 35, no. 3:83-84, 87-88, 93-94 (Feb. 15, 1932); Bull. Inst. Paper Chem. 2: 247.—The investigation was carried out with the object of determining whether a definite relation exists between the breaking length and bursting strength of paper and, assuming that one of the two factors is known, whether it is possible to calculate the unknown factor from the known factor. The results showed that the ratio between breaking length and bursting strength decreases at increasing breaking length, the latter being caused by beating; that this ratio can vary for different pulps at identical breaking length; that bursting strength and breaking length cannot be calculated from each other, even if the height of the bulge is known; that the ratio between the 2 strength factors increases again at higher beating degrees, especially in the case of easy bleaching pulps.—C.J.W.

Measuring the Hardness of Rubber. Pierre Bultel. Papeterie 54:820-823 (Aug. 10, 1932).—A comparison of the Lhomme et Argy and of the Pusey and Jones durometers on three different samples of rubber showed that the former gave results that were from 5% higher than the latter with the hardest sample to 15% higher with the softest. From a discussion of the reasons for this difference, it is shown to be due to the difference in the operation of the two instruments, and it is concluded that the Lhomme et Argy is the more rational because it measures the true deformation of the rubber from a plane surface under a load of 1,000 g., while the Pusey measures the difference in the deformations caused by loads of 90 g. and 1,090 g., respectively.—A.P.-C.

The Problem of Classification of Chemical Pulps*

By C. C. Heritage[1]

For many years the Technical Association of the Pulp and Paper Industry has devoted a great deal of attention to the testing of pulps. The progress which has been made from the standpoint of the industry as a whole is perhaps not as great as would have been expected although it is well known that modern mills buy or manufacture the pulps used, or sell the pulps made, with the aid of laboratory evaluation. There are many which employ their own classifications and conduct their business in buying, selling or making pulps accordingly. In the past, standard testing methods suitable for the industry as a whole have been difficult to agree upon because of the diversity of requirements which the many varieties of pulp in daily use must meet, and the corresponding diversity of interests which are to be reconciled before a standard method may be accepted as suitable for all pulps. In view of the facts that pulp testing in some form or other is almost universally practiced, that pulp classification is by no means new, and that diversity of interests has previously hindered the establishment of standards, it was felt that the attention of the Association might well be directed toward a discussion of the use requirements of pulps and the division of pulps into classes, as basic to the problems involved in evaluation and specification. The purpose in presenting this paper is not to discuss particular property values or specific testing methods. It is rather to present some suggestions on the problem of pulp classification with the hope that from member discussion and subsequent committee study, a classification for pulps, methods of evaluation and perhaps specifications may result which will be of considerable value in the everyday transactions of the industry.

There are various methods in common use by which a given product may be described or specified. The more important of these are (1) by a trade or brand name or number; (2) by describing the raw materials consumed in making the product; (3) by describing the processes employed to convert the raw materials to the product (4) by delineating the requirements of use of the product; (5) by setting forth the properties of some further fabricated material made from the product; (6) by stating the actual composition of the production itself; or (7) by enumerating the properties of the product itself and placing values thereon. All of these either singly or in combination are encountered in every day business dealings. The question arises as to which of these methods technically, is to be preferred in the case of pulps.

The use of the method involving a trade or brand designation depends largely on the magnitude of the transactions involved, the ability and integrity of the vendor, and the necessity for competitive dealings. The element of quality improvement enters also as an unknown factor. It is unlikely that any brand designated material remains of identical quality over a period of years. For this reason as well as because of the magnitude of pulp transactions and the necessity for competitive dealings, this method of describing or classifying pulps must be considered of doubtful value.

The use of the method of describing or naming raw materials used and processes employed may be criticized as being inadequate if brief enough to be workable and unworkable if detailed enough to be adequate. This method is practised to a considerable extent in describing pulps. It is evident, however, that a "spruce sulphite pulp" may be of any nature within wide limits both because there are various spruces and many variations of the sulphite process. The particular species of spruce might be named but it would seem quite futile to detail the particular sulphite process to be used as a means of identifying the specific pulps desired.

The use of the other methods mentioned namely, delineating the use requirements of the product, setting forth the properties of some further fabricated material, or stating the composition and properties of the product itself numerically, is growing in favor particularly for papers. From the standpoint of pulp classification, these merit careful attention.

Regardless of the nature of the product being bought and sold, the transaction is successful only if the product satisfactorily meets the requirements imposed on it by the use to which it is put. Paper and pulp are no exceptions. The only real key to the situation is therefore the use requirements of the final converted paper article as consumed. Use requirements may be stated in ordinary descriptive language and involve only a precise and comprehensive knowledge of the manner in which the article is used and the conversion process employed to create it. For example a piece of printed matter involves such use requirements as quality of the printed result including such matters as detail, contrast, purity, brilliance, etc., and cost of the printed result including form life, ink usage, absence of operating troubles, etc. It would be possible to describe the pulp to be used for the paper to be employed for the printed matter by saying that the pulp shall be such as to meet these requirements but obviously the jump from pulp properties to the requirements of the printed piece is too great to be practical.

It therefore becomes necessary to proceed in a more rational manner step by step, first from the use requirements of the consumed article to the properties and composition of the paper of which it is made and thence to the properties and composition of the pulp employed. It is believed that any material may be completely identified by the values of its various properties, substantiated or supported by its composition if necessary. There is always an interrelation between the use requirements of a product and the properties of the material of which it is made. One use requirement may be related to a number of properties and one property may contribute to several requirements. Similar relations hold in converting one product to another as pulp to paper.

Interrelation of Use Requirements and Paper Properties

Paper is put to a multiplicity of uses and the requirements for these uses likewise call for a corresponding multiplicity of properties, sometimes with the setting of high values, sometimes low and sometimes optimum. An understanding of these property requirements permits of a rational classification of papers, each class being characterized by a particular combination of properties, which should ultimately be capable of precise measurement and

* Presented at the fall meeting of the Technical Association of the Pulp and Paper Industry, Holyoke, Mass., September 14-16, 1932.

[1] Member TAPPI; manager, Coated Paper Div., Oxford Paper Company, Rumford, Maine.

numerical expression. To establish a classification it is necessary to know the interrelation between requirements and properties and the relative importance of the latter. This work is the field of the Use Requirements Committee of the Research and Development Division of the Technical Association committee organization. The Testing Division works in the field of establishing standard methods so that the proper values may be placed upon these properties to the end that a particular class of paper may be precisely defined and specified if desired.

It is obvious that paper classification should precede and serve as the basis for pulp classification. However, if work on pulp classification were to be delayed by the Association pending establishment of a standard paper classification, and the development of property evaluation methods to go with it, the very definite need for a standard Pulp classification and corresponding specifications would remain unsatisfied for some time. It appears therefore that we should utilize present existing knowledge and organize it to serve our ends until such time as more precise knowledge may be available. What then are the commonest and most important requirements of papers and of the process of converting pulp to paper, the relation of which to pulp properties is fairly well understood and in daily practical use?

Color

It appears, perhaps, that of the many requirements to be met, color is very important. Certainly this is true of all white or near white products and no doubt is to a considerable extent true of naturals and shades. Color as a requirement carries directly through to color as a pulp property. It may be of least importance in the case of pulps to be bleached but even here there is evidence that the higher unbleached color gives the higher bleached color, other factors being equal. Color is satisfactorily defined in those commodities where such definition is very necessary to every day trade by three attributes, namely brightness or value, shade or hue, strength or chroma. Thus a dyestuff may be judged as being brighter, redder and stronger than "type." It is suggested that practical color classes for pulps may be established each to cover a definite range of color as defined by value, hue and chroma beginning with magnesium carbonate at one end and proceeding by steps to some color lower than encountered in the field of hard strong kraft pulps. The number of such classes to be established is important since the smaller the spread covered by one color class the more useful the classification becomes. The division points between classes could be established either through the Munsell system or by other scientific means. Secondary permanent standards for matching could be made available for daily use, presumably at reasonable cost.

Bleachability

Bleachability is an important property of certain pulps which appears to originate with the conversion of the pulp to paper but obviously carries back from the basic requirements of the paper article as consumed. Although bleachability concerns only certain color classes of pulps, it may be considered as a corollary to color and hence of corresponding importance. It is difficult to deal with bleachability without basic color standards for reference because the practical answer desired is what proportion of bleaching agent is necessary to secure a desired color, without abnormal degradation, and material loss. The establishment of a complete color classification should greatly facilitate the classification of pulps as regards bleachability since the starting and end points may be designated with fair precision. The classification of unbleached color has already been mentioned. The question of one or more standard end colors remains to be considered. It is obvious that for the industry as a whole a fairly wide range of end colors are found in actual practice. It appears then, that the choice exists of classifying by end colors upon the application of a standard proportion of bleaching agent or by bleach usage to reach a standard end color. Considering the variety of pulps now being bleached and that this variety will perhaps increase rather than decrease, probably neither of these will answer satisfactorily and a combination of bleach usages and end colors will be necessary to establish a comprehensive classification under this property. It is suggested that the Fundamental Research Committee determine the bleach usage, degradation and end colors for pulps representative of the entire range of those commercially bleached, before a classification be attempted. Attention should be given to establishing a maximum permissible degradation which action can be measured by solubility of the bleached pulp in alkali.

Refining Action and Property Development

The use requirements of the products made from paper demand such properties in the paper as strength of various kinds, bulk, opacity or transparency, polish or lack of it, various types of surfaces, absorbencies of many kinds and degrees, stiffness or limpness, and others. In few if any cases can chemical pulps be employed in the manufacture of paper without some refining and for use in many grades of paper, the refining is extensive. It is therefore important that pulps be classified relative to their response to refining action involving the extent of the response relative to the time employed.

It would be ideal to be able to determine the potential response to refining action for the development of properties required in machine made paper, by the testing of pulp in water suspension or by the testing of sheets made from the unrefined pulp. A start in this field has been made through the TAPPI-APPA fellowship at The Forest Products Laboratory at Madison, Wis., and also by other workers in establishing or suggesting such determinations as particle size, sedimentation, flocculation and others. It is felt however that none of these have been related sufficiently to paper properties to be of use in the immediate future in pulp classification work with the possible exception of particle size. It is suggested that, since very little paper is produced from unrefined pulps, the response to refining action is a better basis of classification as regards those paper properties secured and controlled primarily by refining than the usually determined properties displayed by test sheets of unrefined pulp sometimes referred to as "initial properties." Therefore it is necessary to assume that the response to refining action will be determined by employing test sheets produced from pulp refined in a standard manner.

From a practical standpoint, when a certain paper is to be manufactured certain property values must be developed in the stock. The time necessary to develop these values becomes the primary operating variable. It would be possible to arbitrarily decide upon a value for each property as displayed by standard test sheets and classify pulps relative to that developed property on the basis of time of refining to reach that value selected. However, several difficulties are encountered.

It appears impractical to decide upon one value for any given property. The evaluation data of twenty-six unbleached sulphite pulps established by refining using a pebble mill, was studied from the standpoint of classifica-

tion in this manner. The properties included bursting strength, tearing strength, folding strength, bulk and freeness. The pulps were equally divided into three classes,—rapid, medium, and slow,—on the basis of the duration of refining to reach each of three arbitrarily selected values for each of the five properties. In the case of every one of the five properties about one third of the pulps changed their classification when the property value selected was changed. This is explained by the occurrence of property development curves which vary materially either in slope or shape from what might be called the average type. The difficulty is particularly exaggerated in the case of tearing strength.

A classification based on the time required to refine to a given property value would tend to increase the work of evaluation since the time value could be found only by establishment of the whole curve in order that it be read therefrom.

Likewise in dealing with various properties, a different refining time would be encountered for each property. Since but one refining time can be used in practice, compromises between properties on the basis of importance in the finished sheet would be involved which would probably become confusing.

In spite of the fact that duration of refining is the variable when the property value is fixed, it appears more desirable to classify pulps according to the property values reached at certain fixed refining times. This seems advantageous when it is considered that in many mills refining capacity is flexible between rather narrow limits and a pulp must be chosen to meet the refining capacity rather than vice-versa. It is suggested therefore that a classification be considered on the basis of available mill refining action expressed in corresponding minutes of refining by the standard test method to be chosen. Three or possibly four durations of refining might cover the industry, none of which would necessarily involve any consideration of maxima as they occur in the property development curves.

Developed Strength

Four kinds of strength in papers and in pulps have been generally recognized in the industry as necessary to meet the requirements of resistance to various types of imposed loads and forces in the use of paper products as converted and consumed. These are tensile, bursting, tearing and folding strengths. Since tensile and bursting strengths are quite analogous, it appears fairly safe to omit one and employ the other. Since bursting strengths are determined and used more widely than tensile strengths, the former may be selected tentatively for classification purposes.

Certain tendencies toward interrelation of the three remaining strength properties appear. Using the data from the evaluation of the twenty-six unbleached sulphites mentioned before, each pulp was roughly classified relative to the entire group of pulps, as being high, medium, or low in each of the three developed strengths. The classification was entirely relative, no absolute values being involved.

As regards bursting strengths, the range covered by the samples at 40 minutes milling was 22 per cent to 80 per cent points. As regards tearing strength the range covered was 340 per cent to 145 per cent points. As regards folding strength the range covered was 10 to 1800 double folds (85 pounds — 24 x 38,500 sheets). The division of the pulps between the three classes for each type of strength was made approximately by thirds, that is, the nine highest bursting pulps were rated "high," the next nine "medium," and the last eight "low." The following combinations were absent:

High bursting with high tearing,
High tearing with high folding,
High bursting with low folding,
Low bursting with high folding.

Likewise any combination of classes involving all three strength properties which included any of the foregoing pairs, were absent as for example—

Low bursting with high tearing and high folding.

Certain combinations occurred frequently:

High bursting with low tearing,
Medium bursting with medium tearing,
Low bursting with high tearing,
Medium tearing with medium folding,
Low tearing with high holding,
High bursting with high folding,
Medium bursting with medium folding,
Low bursting with low folding.

When the three strength properties and the three classes are considered together, there are twenty-seven possible combinations. Nine do not occur in the group of pulps studied, these nine being various combinations of the four pairs given first above. Seven of the twenty-six pulps fall in two of the eighteen remaining combinations:

High bursting with low tearing and high folding, and
Low bursting with high tearing and low folding.

All the others involve a "medium" rating in respect to one or more of the three properties, with the exception of two pulps which rate "low" in all three respects.

These ratings are relative within the group of pulps studied; the range of developed strength values represented by these pulps is sufficiently large for the purpose.

This brief study is presented only to show that, although there are tendencies toward interrelation of developed strengths as at present measured, a much clearer understanding of these tendencies is necessary before any of the three strengths may be safely ignored in any pulp classification.

Although it may be possible later, with much more data available and with careful study of these relationships, to arrive at a simpler classification, it is suggested that, for the immediate future, a separate classification is required for each of the three developed strength properties.

Other Developed Properties

There are other developed properties closely related to use requirements which are fully as important as developed strength. Some of these are Freeness, Bulk, Opacity, Absorbency, Stiffness, Shrinkage, and Response to polishing. Here also there are tendencies toward interrelation and perhaps for purposes of classification, certain groupings may be possible as for example freeness, bulk and opacity, all of which decrease with refining action. Their development curves for various pulps vary greatly in slope and are not necessarily straight lines. Before any suggestion can be made in this field of classification, committee study is necessary. It is possible that a developed freeness classification might be established reasonably soon. It is further quite possible that it will be found desirable to support classes based on developed properties other than freeness, by interrelating the developed freeness. Thus a given pulp class would call for certain properties to be developed concurrent with a certain developed freeness.

Dirt

The cleanness of pulps is closely related to use requirements in many cases. Pulp dirt consists of a variety of materials ranging from carbon particles to shives. The

expression of dirt content numerically usually involves weighting the sizes of dirt particles present and sometimes involves weighting the kind of dirt present since some disappears in bleaching, in fine screening and in breaking up into minute particles. Classification of pulps on the basis of dirt content is important and is probably a fairly simply matter. Three or four classes should be sufficient.

Composition

Under the heading of composition such characteristics as pitch content, alkali solubility, total cellulose, lignin, alpha cellulose, viscosity and ash are to be considered. It is suggested that the use of these characteristics as means of classification might well be postponed pending the results of classification through properties more closely related to the common use requirements. There is no doubt but that some of these composition characteristics are important particularly for certain grades. Pitch content should be kept at a minimum for all pulps and alkali solubility as indicative of harsh chemical treatment should not exceed a certain maximum. However, it is felt that for the majority of uses, composition will be found to offer substantiating or supporting evidence in the preparation of class specifications rather than to serve as the primary basis of such classification.

Summary

A scheme for the classification of chemical pulps has been suggested as a starting point for discussion and committee work, employing the following: color, bleachability, duration of refining action, developed strength (Bursting, Tearing and Folding) developed freeness, and dirt.

Any discussion of specific evaluation methods and property values is beyond the scope of this phase of the problem and should be handled by committees responsible for the work in these fields.

The criteria for classification suggested are believed to be in line with current mill practice and not counter to trade parlance except that reference to raw material used or process employed is omitted. The classification suggested is not simple yet is believed to be capable of development to a practical tool which will be very useful in carrying on the every day technical and business dealings of the industry. If it does nothing more than offer an official language for those who want it, the further study of this matter will be well worth while. The work on standard testing methods can be concentrated on those characteristics essential to the classification. Material reduction of the number of pulps to be considered and evaluated in choosing a pulp for any particular use, will obtain when the classification is established and in use.

Use of White Water in Fine Paper Mills*

By Andrew Jackson[1]

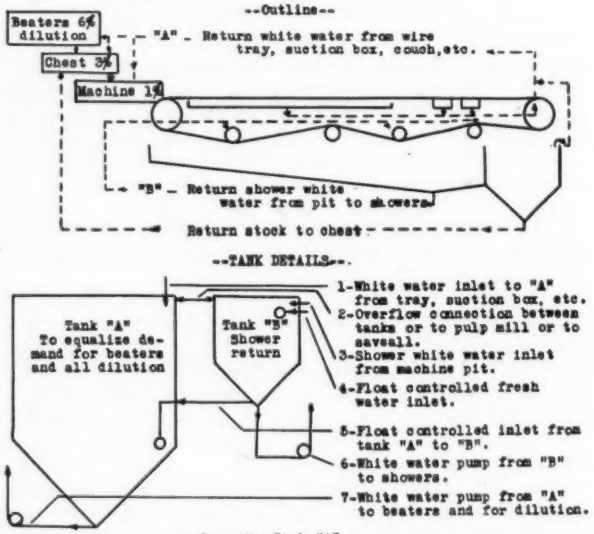
The purpose of this paper is to place before the mill operators and others interested in white water utilization the progress made in a mill making high grade rag content paper. The mill is, therefore, considered a fine paper mill.

Before considering the reuse of white water in any part of the mill, it is well to consider the use and treatment of fresh water, rags, pulp and other raw materials used in the manufacture of paper. Practically all of the ingredients contain bacteria or cause bacteria to grow. It is necessary to eliminate the bacteria which can be accomplished by the application of chemicals. A bulletin entitled "Slime Control," recently published by the American Pulp and Paper Association indicates the most effective method of control to be a combination of chlorine and ammonia, known as chloramine. Much has been learned of this treatment in recent months. The point of application and the best results are obtained by injecting the two chemicals in the fresh water entering the mill. Individual application at various places throughout the system did not react as well as the treatment of the entire water supply. This may be due to the entire water supply being constant, which permits a constant supply of chemicals to be used. Application of the chemicals to intermittent processes is almost impossible to regulate.

The reuse of white water is not a new idea. Both fourdriniers and cylinder machines have been reusing tray and cylinder water for dilution of the stock coming to the machine.

The reclaiming of white water from paper machines by the use of save-alls is a later idea and there are many types of machines to reclaim the fibers and water before allowing the excess clarified water to waste to the sewer.

The practice of collecting and reusing all of the so-called "white water waste," comprising excess tray water, suction box effluent, couch pit overflow and shower white water, is considered by the writer as white water utilization. By reusing this water to the fullest extent, first, on the paper machines; second, on the screens; third, in the jordan; fourth, in the beaters, you have a so-called "closed system" or complete white water utilization.


--Outline--
Beaters 6% dilution
"A" - Return white water from wire tray, suction box, couch, etc.
Chest 3%
Machine 1%
"B" - Return shower white water from pit to showers
Return stock to chest
--TANK DETAILS--
Tank "A" To equalize demand for beaters and all dilution
Tank "B" Shower return
1-White water inlet to "A" from tray, suction box, etc.
2-Overflow connection between tanks or to pulp mill or to saveall.
3-Shower white water inlet from machine pit.
4-Float controlled fresh water inlet.
5-Float controlled inlet from tank "A" to "B".
6-White water pump from "B" to showers.
7-White water pump from "A" to beaters and for dilution.

--Capacity Tank "A"--

		Formula	Example
LET -	Capacity of beater in pounds equal	W	1200
	Number of beaters dropped per 24 hours	N	14
	Time to fill and drop one beater	T	3/4
	% consistency of stock to beater chest	P	3
	Number of beaters dropped simultaneously	S	1
THEN	Required capacity of tank "A" in cubic feet =		

$$V = \frac{1.6 \times WS}{P} - \frac{TWN}{15 \cdot P} = \frac{1.6 \times 1200}{3} - \frac{.75 \times 1200 \times 14}{15 \times 3} = 360 \text{ cu. ft.}$$

FIG. 1.
Diagram showing White Water System for a Fourdrinier Machine.

* Presented at the fall meeting of the Technical Association of the Pulp and Paper Industry, Holyoke, Mass., September 14-16, 1932.
Contribution of TAPPI Waste Committee.

[1] Member TAPPI, chief engineer, American Writing Paper Company, Holyoke, Mass.

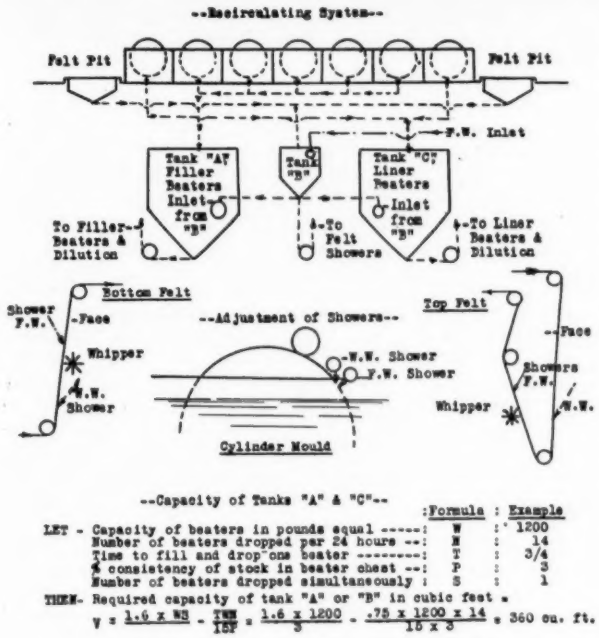

--Recirculating System--
Felt Pit
Felt Pit
F.W. Inlet
Tank "A" Filler Beaters Inlet from "B"
Tank "B"
Tank "C" Liner Beaters
Inlet from "B"
To Filler Beaters & Dilution
To Felt Showers
To Liner Beaters & Dilution
Bottom Felt
Shower F.W.
Face
Whipper
W.W. Shower
--Adjustment of Showers--
W.W. Shower
F.W. Shower
Cylinder Mould
Top Felt
Face
Showers F.W.
Whipper
W.W.
--Capacity of Tanks "A" & "C"--
:Formula : Example
LET - Capacity of beaters in pounds equal ----: W : 1200
Number of beaters dropped per 24 hours --: N : 14
Time to fill and drop one beater ---------: T : 3/4
% consistency of stock in beater chest --: P : 3
Number of beaters dropped simultaneously : S : 1
THEN- Required capacity of tank "A" or "B" in cubic feet =
V = 1.6 x WS - TNS/15P = 1.6 x 1200/3 - .75 x 1200 x 14/15 x 3 = 360 cu. ft.

FIG. 2.
Diagram showing White Water System for Paperboard Mill.

There are many savings to be accomplished by closing the system. The primary reason is to prevent waste of fibers, but there are various chemicals and fresh water to be saved. Increased production of a paper machine is sometimes limited by the supply of fresh water due to the capacity of the filters. The reuse of white water may make it unnecessary to add additional filter equipment for fresh water.

The white water utilization, as hereinafter described, does not require any save-alls, it being the contention that it is inconsistent to separate the fibrous stock from the white water only to return the stock to one part of the system and the water to another.

The principles of collection and recirculation of water which were followed are those suggested by C. M. Baker, chief engineer of the American Pulp and Paper Association. Mr. Baker has been pioneering the work and is conversant with many of the problems encountered in white water utilization.

Principles of White Water Utilization

Fig. 1 is self-explanatory and the principles outlined can be followed to a close degree of accuracy to meet the individual installation of present mill equipment.

The principles of reuse of the white water are based upon the separation of the white water into two classes: "A," the heavier or more concentrated white water brought to the machine with the stock. This water is used for dilution of the stock in process to 6 per cent consistency at the heaters, 3 per cent in the beater chest and 1 per cent or less at the paper machine. These figures are approximate. All of this water is practically extracted from the stock on the upper stretch of the wire between the tube rolls and is collected from the wire tray (only the excess white water not used by fan pump for dilution of stock delivered to the screens), suction boxes and couch roll and returned for dilution to the points mentioned without separating the fiber or stock from it.

The stock accumulating at the couch rolls when starting the machine, changing weights or grades, is collected in a pit under the couchers and is returned at intervals directly to the machine chest. It is optional to use the contents direct to the chest or reuse it in the white water dilution system.

"B" is the lean white water from the wire showers and is reused in the showers for cleaning the wire and also to make up the deficiency of "A" water caused by heavy use when dumping or filling a beater. All of the shower water except the shower near the couch rolls is collected by trays under the wire. The water from the shower near the couch rolls falls into the couch pit which is provided with an overflow connected to the discharge of the trays collecting the shower white water. The pit under the fourdrinier can be used to collect all of the shower white water if care is taken to keep out foreign matter as well as hose streams from the wash-up hose.

The recirculating system requires two tanks which we know as "A" for the heavier concentrated white water, and "B" for the shower white water. Fig. 1 shows a connection between the "A" and "B" tanks with float operated control valve arranged so that there will always be sufficient water in tank "A" to equalize the demand for filling and dumping beaters as well as for dilution to the jordan, screen and mixing box. A float operated control valve on the fresh water supply maintains a constant volume of water in tank "B" for use on the showers. By this method the more concentrated water is used in the stock and the clearest water is provided for the showers.

Preliminary Surveys

When the preliminary survey work was started and also the work of installation of the system begun, we found it necessary to have one person follow up the details in order to study and make suggestions for the corrections of the difficulties encountered in manufacturing. It is necessary to have cooperation of all the departments interested.

The samples were analyzed and data compiled by Samuel Hellberg who has prepared a companion paper entitled "A White Water Survey for Fine Paper Mill" to explain

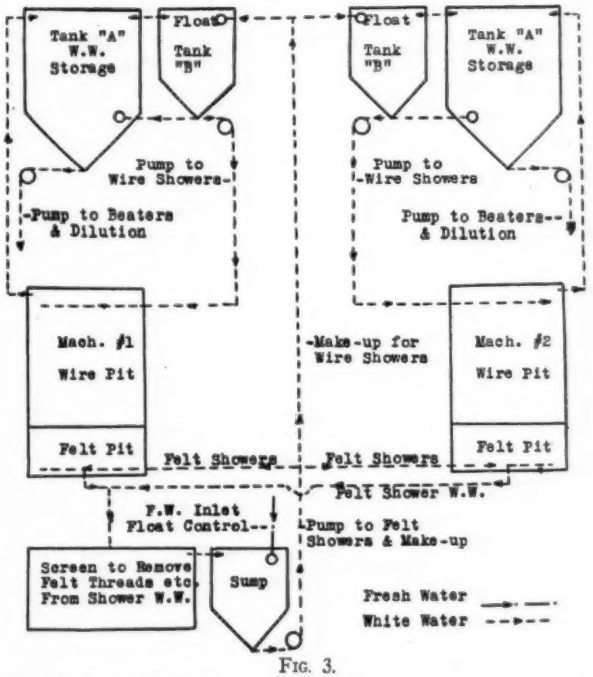


FIG. 3.
Diagram showing White Water System for Harper and Yankee Fourdrinier Machines.

the study and difficulties encountered in the manufacturing process.

We found it impossible to obtain any mechanical sampling device which would obtain a true sample of the waste water overflowing the weir. We wanted a sample of the center of the stream flowing over the weir. The work was done by an operator on a strict schedule, using a special gauge and dipper.

The necessary weirs for measuring the total amount of water and waste materials from the machine were installed for the preliminary survey. These were later rearranged to obtain samples of only the effluent from the suction boxes. They have been changed back to their original location for checking.

The tanks "A" and "B" which we used for storage of the respective waters "A" and "B" are of limited capacity. These are wood tanks of approximately 3000 gallons and 300 gallons capacity, respectively, which we had on hand and they were satisfactory for our needs.

The piping is arranged so that it can be taken down for inspection or cleaning, if necessary. It is of copper with cleanouts at advantageous locations.

The circulating piping to the beaters was so arranged that the "A" white water would have a sufficient head to carry a steady pressure supply to the jordan mixing box for dilution into the jordan. The same arrangement was provided for supplying white water for dilution to the "fan pump box" at the rear of the machine. The circulating system discharges into the tank "A." The "A" water is handled by a 4-inch motor-driven pump which is suitable for the amount of stock handled by the paper machine and is operated by remote control to eliminate, as far as possible, the unnecessary churning which causes heat and foam.

The shower water "B" is collected, as outlined above, and this is handled by a smaller higher pressure motor-driven pump. Here we had trouble due to several things, but gradually the troubles were overcome by changing the size of the pump and reducing the pressure on the showers as well as enlarging the size of holes in the showers. The shower water supply system is cross connected so that when the fourdrinier wire is stopped, fresh water can be used instead of white water in order not to build up on the fourdrinier wire an accumulation of fibers carried by the white water. Shower pipes were rearranged so that the stream of water would not strike the wire except at an angle to produce more of a chiseling effect of the water on the wire. The shower pipes on the machine offered some resistance to the reuse of the white water and new ones were provided with larger holes and one shower was entirely eliminated. Another shower was removed from the inside of the wire and relocated so that the stream of water would wash the roll from the outside. The roll is the first outside roll on the return of the wire. The reuse of white water in the shower used for cleaning the breast roll was a failure. This shower is supplied by fresh water.

A few changes had to be made in the original installation, but are of minor importance as the system is one that has grown from being partly-closed to one that can be entirely closed when the product permits the reuse of white water throughout.

The various grades of paper require different operating conditions of the circulating system of dilution.

Fig. 2 illustrates the principles of white water utilization for board mills. This system has been installed in one of our coarse mills.

Fig. 3 is that of a mill equipped with harper and yankee fourdriniers.

White Water Surveys in a Fine Paper Mill*

By Samuel Hellberg[1]

The description of our surveys, the results that they showed and the difficulties encountered in the re-use of white water may be of interest to anyone contemplating an installation of a white water system.

We made two preliminary surveys, each of a week's duration, which gave us the actual losses on the machine we had previously selected for the installation. In the first survey, we found that the main sources of these losses were the suction boxes, wire pit and press pit. The average result of this survey, taking in all the continuous losses, that is, suction boxes, wire pit and press pit, showed that the loss expressed as "total suspended solids" was 46 pounds per ton of machine production or 2.3 per cent. The loss was remarkably constant from day to day, the variation being less than 10 per cent above or below the average result.

A second survey, taking only the suction box water, showed 31 pounds per ton of machine production or 1.55 per cent. The average variation of this survey was less than 6 per cent above or below the average result. This showed very definitely that nearly 75 per cent of the waste came from the suction boxes.

Hydrogen Ion Concentration

The pH at the various points may be of interest:

Fresh Water	6.43
Machine Mixing Box	4.19
Machine Head Box	4.27
Table Roll Save-all Tray	4.35
Suction Boxes	4.29
Shower Couch Roll Tray	5.96

The potentiometer determinations checked very well from day to day.

Large Amount of Stock Reclaimable

We were so surprised at the large amount of waste that could be reclaimed by means of a white water system that we decided to install at once a partly closed system that eventually could be closed if it proved desirable. When the system was completed so that the suction box water and the shower water could be used in furnishing and dumping beaters and also for dilution at the machine mixing box, we made other surveys to determine the actual savings in dollars and cents and the efficiency of the system. A chlorination system was also installed which fed chlorine water directly into the white water supply tank.

* Presented at the fall meeting of the Technical Association of the Pulp and Paper Industry, Holyoke, Mass., September 14-16, 1932.
Contribution of TAPPI Waste Committee.
[1] Chemist, American Writing Paper Company, Holyoke, Mass.

The first of these surveys was made to determine the losses from the suction box water and showers. Results showed 28.8 pounds per ton machine production or 1.44 per cent. This figure represents waste that can be saved easily and efficiently and reused without increasing dirt in the paper. Our previous figure of 46 pounds or 2.3 per cent could not be saved entirely, because of the character of much of the waste especially from the pits.

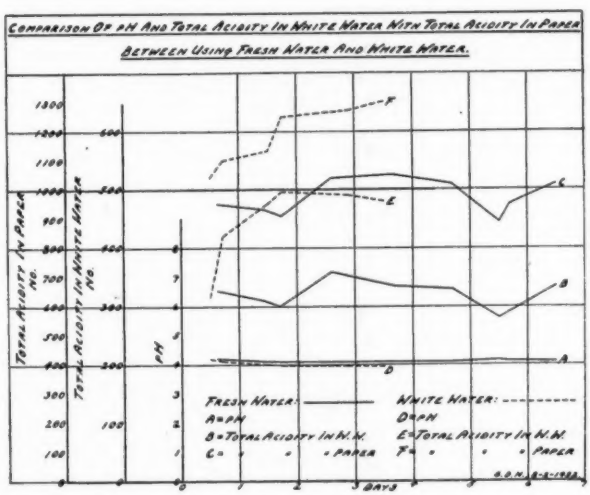
The object of our second survey was to show the actual saving by reusing the suction and shower water for furnishing and dropping beaters and dilution at the machine mixing box, the balance overflowing into the weirbox. The fiber loss was 13.8 pounds per ton of machine production or .69 per cent. The saving from this method of operation was 15 pounds per ton of machine production or 0.75 per cent. This showed the system to be operating at an efficiency of 52 per cent.

In our third survey the white water from the suction boxes only was used for furnishing and dropping and dilution at the machine mixing box. The results were not accurate, however, due to some mechanical difficulties encountered but we feel that the saving of 19 pounds per ton of production is a conservative figure, which means 66 per cent efficiency for the system.

Closing the White Water System

These results were so encouraging that plans for closing the system completely were entertained. The plan was made up of two separately operated, completely closed systems. One of these received its source of white water from the suction boxes and the overflow from the shower couch roll tray and returned this supply to the beaters, machine mixing box, Jordan mixing box and auxiliary screen. The return to the beaters was separate and the use of this line was operated by a remote controlled motor switch to eliminate unnecessary agitation in the system. The other system received the shower water and returned it to the showers.

That difficulties would be encountered was expected. However, many of them have been corrected during the short time it has been in operation. We had trouble with slime, dirt and ridging of the machine wire but these have been entirely eliminated. We attributed our slime difficulties to the use of chlorine alone in the white water supply tank. The slime increased as longer runs were made, reusing the white water and even when we had the chlorine consumption as high as we dared have it without danger to the color of the paper and the corrosive effect on the metals, we still had trouble. We then changed to the ammonia-chlorine treatment and since then have had exceptionally fine results. For our purpose we found that 6 parts of chlorine and one part of ammonia gave the most satisfactory results with an average residual chlorine of 0.2 parts per million.


COMPARISON OF pH AND TOTAL ACIDITY IN WHITE WATER WITH TOTAL ACIDITY IN PAPER
BETWEEN USING FRESH WATER AND WHITE WATER.
TOTAL ACIDITY IN PAPER No.
TOTAL ACIDITY IN WHITE WATER No.
pH
DAYS
FRESH WATER:
A=pH
B=TOTAL ACIDITY IN W.W.
C= " " PAPER
WHITE WATER:
D=pH
E=TOTAL ACIDITY IN W.W.
F= " " PAPER

Comparison of pH and total acidity in white water with total acidity in paper between using fresh water and white water.

We found the ammonia-chlorine treatment to be much better than the straight chlorine treatment and we have had very little slime trouble since we have been using it.

Immediately on reusing the shower white water for the showers, we had trouble with the wire ridging. We found the stock worming around the breast and stretcher rolls and overcame this difficulty by substituting fresh water on the breast roll and changing the location and adjustment of the shower preceding the stretcher roll. We placed this shower on the outside and directed it at a tangent to the wire and lead roll. It should be stated that the reuse of the shower water in the showers necessitates more care and watching on the part of the machine tender.

Reuse of White Water in Beaters

In the reuse of the white water in our beaters, we encountered sizing difficulties. There were several reasons for this, such as the increased acidity of the white water, higher temperature of the water, higher per cent of solids in the water and the change in pH at which the rosin size was added. We were running on a particularly hard engine sized sheet which intensified this difficulty since the sizing could not be corrected with the tub size.

From our past experience we were of the opinion that stock is better beaten and sized in a slightly alkaline or neutral water. Since the white water was decidedly acid, we tried to correct this condition by neutralizing the white water to the pH of the fresh water, or approximately to a pH of 6.5. At first this seemed to help but in continual running the sizing fell off, due, we thought to the large amount of sodium sulphate formed and the increasing larger amounts of alkali necessary for neutralization. This condition was reflected in the paper as the physical properties were inferior.

We also tried to cut down the amounts of alum and rosin added to the beater to compensate for the return of these chemicals in the reused white water. This procedure was not satisfactory for the particular paper we were making, as it reflected in the sizing and the total acidity of the sheets so we discontinued this procedure. We still feel, however, that on other grades of paper this is the only way to reuse white water in beaters that is to cut down the alum and rosin used. When we did not obtain as good results in beating and sizing with the above corrections in the white water, we discontinued its use in furnishing beaters. We plan to do more work on this as the weather gets cooler, as well as trying the use of lime at the fan pump.

The question of increased foam with the reuse of white water was also studied. We found that much of our foaming difficulty was due to mechanical agitation rather than to chemical conditions and by simple mechanical changes we eliminated most of the foam. We are planning to try the chemical trim process on the study of chemical foam which we think may be due chiefly to entrapped CO_2.

Another problem in the reuse of white water in beaters seems to be the additional time required to beat the stock to the same slowness when the white water is used, due, it was thought, to the high temperature of the water. We found that if more time was not given in beating, the physical tests of the paper were lower. We are doing

more work on this problem of temperature in beating by making a comparison of paper when the stock is beaten with water at 50 deg. F. and at 80 deg. F. We are beating to the same slowness and taking temperature readings during the beating cycle. The beating difficulty, besides being due only to higher temperature, may also be due to the high concentration of soluble salts in the water which tend to slow up hydration. This condition is reflected particularly in the tearing strength of the paper.

Fig. 1 shows a comparison of the total acidity in the paper with the pH and total acidity in the white water when using fresh water and white water. The curves show the higher the acidity in the white water, the higher the acidity in the paper. This brings out the point that the acidity in the paper is higher when white water is used, caused no doubt by the acid reaction of the sodium sulphate in an acid solution.

In reusing white water in our fine mill we have done so at the worst season of the year. Papermaking troubles are always increased during the hot humid weather. We think that on the whole we have had very satisfactory results in reusing white water in all places but in beater furnishings.

Philadelphia TAPPI Discuss Stuff Handling

The Delaware Valley Section of the Technical Association of the Pulp and Paper Industry met at the Engineers Club, Philadelphia, Pennsylvania, Friday evening, December 2nd, with W. R. Maull, Dill & Collins, Chairman presiding.

The first speaker of the evening was D. Manson Sutherland, Jr., consulting engineer, Trenton, N. J., who talked on the refining of pulp for paper manufacture.

Mr. Sutherland said in part: "It has always been my impression that the introduction of chemical and mechanical research into paper making would develop fundamental knowledge regarding the raw material characteristics used, and the chemical and physical changes that occur during the different stages of the process until the finished product is shipped, but my observation in a number of mills leads me to believe that more work has been done on the finished product, rather than on the raw materials and intermediate stages of production.

"In most mills it is routine practice to test incoming shipments of sulphite and groundwood pulps to determine moisture content, and in some cases hand sheets are made to ascertain strength and other special characteristics, but I have been surprised to find that very few mills operating under good technical control keep daily records of the actual refining work done in beaters and jordans separately or the horsepower consumed in each case. It appears that there is not as yet close cooperation between paper makers and the technical department in the process of refining.

"The lack of electrical recording instruments in most mills is responsible for the present day lack of knowledge regarding actual horsepower consumption in relation to work done in refining equipment. I have personally observed jordans operating with a recording ammeter which shows no change in power input, although the machine tender has frequently changed the position of the jordan plug to make certain changes in the characteristics of the stock, which he considered necessary. In order to get more accuracy, a watt meter might be used to advantage.

"It is usual in mills to use a standard of horsepower per day per ton of horsepower hours per ton, but my observation indicates that in the very near future it will be advisable to adopt a new standard such as horsepower hours per 10 cc. drop in freeness so as to correlate the horsepower more closely with actual refining work done on fibers.

"As a result of our study we consider the following features in a continuous refiner to be essential and present them in the order of their importance: (1) uniformity in refined pulp characteristics, (2) almost entire elimination of manual control, (3) materially reduced labor costs, (4) less horsepower consumption per ton of paper, (5) low maintenance cost, (6) elimination of corrosion and dirt, (7) small floor space."

There was considerable discussion of the paper, largely consisting of questions answered by Mr. Sutherland. M. A. Krimmel, Hammermill Paper Company, and past president of the Technical Association was present and discussed the paper. He expressed considerable admiration of the refiner developed by Mr. Sutherland and felt that one of its principal features will be power saving. The result accomplished by the refiner is in Mr. Krimmel's opinion, mechanical opening up of the bundles of fibers, producing what are known as fibrillae.

The second paper of the evening was on the subject of stock pumping by Mr. Ledger of Goulds Pumps Inc., Seneca Falls, N. Y.

Among those present were the following: E. J. Albert, Thwing Instrument Company, Philadelphia, Pa.; E. E. Backlund, Goulds Pumps Inc., Philadelphia; J. H. Brougham, Penn Fibre Board Corporation, York, Pa.; H. P. Cannon, Container Corporation of America, Manayunk, Pa.; Maurice Connor, Glassine Paper Company, W. Conshohocken, Pa.; O. C. Cordes, Westinghouse Electric and Manufacturing Company, Philadelphia; L. F. Derr, Goulds Pumps, Philadelphia; G. H. Detwiler, Heller & Merz Corporation, Philadelphia; C. A. Grove, Tarentum Paper Mills, Tarentum, Pa.; W. C. Jay, Sanitary Products Corporation, Philadelphia; Valdemar Jacobsen, National Aniline and Chemical Company, Philadelphia; C. J. Kern, Moore & White Company, Philadelphia; R. W. Kumler, Bennett Inc., Cambridge, Mass.; Paul Koenig, P. H. Glatfelter Company, Spring Grove, Pa.; M. A. Krimmel, Hammermill Paper Company, Erie, Pa.; W. R. Maull, Dill & Collins, Philadelphia; Charles McDowell, McDowell Paper Mills, Manayunk, Pa.; F. J. McAndrews, McDowell Paper Mills, Manayunk; George Morten, General Dyestuffs Corporation, Philadelphia; M. Craig Maxwell, McDowell Paper Mills, Manayunk; R. G. Macdonald, Secretary of TAPPI, New York; H. W. Piquet, MacAndrews & Forbes, Camden, N. J.; F. W. Parsons, Glassine Paper Company, W. Conshohocken, Pa.; J. G. Ramsey, Jessup & Moore Paper Company, Wilmington, Del.; John Roslund, Moore & White Company, Philadelphia; G. W. Robert, General Electric Company, Philadelphia; S. D. Reynolds, Container Corporation of America, Manayunk; C. W. Rivise, Philadelphia; J. Carl Schmidt, E. I. duPont de Nemours & Co., Philadelphia; R. H. Stagemyer, Penn Fibreboard Corporation, New York; D. M. Sutherland, Jr., D. Manson Sutherland Company, Trenton, N. J.; H. C. Schwalbe, Dill & Collins, Philadelphia; W. M. Shoemaker, National Vulcanized Fibre Company, Yorklyn, Del.; J. Bertwell White, National Vulcanized Fibre Company, Yorklyn, Del.; Almeron W. Wickham, MacAndrews & Forbes Company, Camden, N. J.; F. E. Winslow, General Electric Co., Philadelphia.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING DECEMBER 3, 1932

CIGARETTE PAPER

Gluckman & Strauch, Indep. Hall, Bordeaux, 3 cs.; American Tobacco Co., Indep. Hall, Bordeaux, 100 cs.; De Manduit Paper Corp., Indep. Hall, St. Nazaire, 699 cs.; Standard Products Corp., De Grasse, Havre, 159 cs.; American Tobacco Co., De Grasse, Havre, 100 cs.

WALL PAPER

F. J. Emmerich, Georgic, Liverpool, 1 ble.; F. Blank, A. Ballin, Hamburg, 2 cs.

PAPER HANGINGS

W. H. S. Loyd & Co., Amer. Merchant, London, 13 bls., 1 cs.

NEWS PRINT

Perkins Goodwin & Co., Stuttgart, Bremen, 63 rolls; Jay Madden Corp., Stuttgart, Bremen, 41 rolls; W. H. Bell, Markland, Liverpool, N. S., 5,239 rolls; ——, Stavangerfjord, Oslo, 458 rolls; ——, Scanstates, Wiborg, 172 rolls; Jay Madden Corp., Scanstates, Wiborg, 485 rolls; Parsons & Whittemore, Inc., A. Ballin, Hamburg, 170 rolls; Bank of Montreal, Cornerbrook, Cornerbrook, 3,427 rolls.

PRINTING PAPER

P. C. Zuhlke, Pennland, Antwerp, 23 cs.; W. C. Sullivan Co., A. Ballin, Hamburg, 6 cs.; Happel & McAvoy, A. Ballin, Hamburg, 2 cs.

WRAPPING PAPER

Borden Riley Paper Co., Stuttgart, Bremen, 17 cs.; R. Wilson Paper Corp., Pennland, Antwerp, 2cs.; Sylvania Industrial Corp., Pennland, Antwerp, 6 cs.; Standard Products Corp., Pennland, Antwerp, 3 cs.

PACKING PAPER

W. G. Young, Pennland, Antwerp, 8 bls., Globe Shipping Co., A. Ballin, Hamburg, 62 rolls.

DRAWING PAPER

Keuffel & Esser Co., Port Said Maru, Hamburg, 54 cs.; Favor Ruhl Co., Amer. Merchant, London, 3 cs.; Schencker & Co., A. Ballin, Hamburg, 1 cs.

FILTER PAPER

H. Reeve Angel & Co. Inc., Ascania, Southampton, 3 cs.; A. Giese & Son, A. Ballin, Hamburg, 35 bls., 5 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Pennland, Antwerp, 1 cs.; Gevaert Co. of America, Pennland, Antwerp, 23 cs.; Intl Forwarding Co., A. Ballin, Hamburg, 9 cs.

METAL COATED PAPER

K. Pauli Co., A. Ballin, Hamburg, 34 cs.; L. Uhlfelder Co., A. Ballin, Hamburg, 1 cs.

COATED PAPER

Happel & McAvoy, A. Ballin, Hamburg, 20 cs.

PHOTO PAPER

Medo Photo-Supply Co., Pennland, Antwerp, 2 cs.; American Express Co., A. Ballin, Hamburg, 13 cs.

COLORED PAPER

S. Gilbert, Stuttgart, Bremen, 4 cs.; S. Gilbert, Bremen, Bremen, 3 cs.; Beckhard Simfred Co. Inc., Bremen, Bremen, 3 cs.

PARCHMENT PAPER

W. Bersch, Stuttgart, Bremen, 7cs.

TRANSFER PAPER

Rohner Gehrig & Co., Bremen, Bremen, 17 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Georgic, Liverpool, 14 cs. (duplex); B. F. Drakenfeld & Co., Georgic, Liverpool, 5 cs. (simplex); Sellers Transportation Co., A. Ballin, Hamburg, 10 cs.

TISSUE PAPER

B. F. Drakenfeld & Co., Georgic, Liverpool, 1 cs.; Draeger Shipping Co., Amer. Merchant, London, 3 cs.

WRITING PAPER

G. W. Sheldon & Co., De Grasse, Havre, 7 cs.

ENVELOPES

Beckhard Simfred Co. Inc., Bremen, Bremen 43 cs.

GUMMED PAPER

Heemsoth Basse & Co., Stuttgart, Bremen 3 cs.

SILK PAPER

P. J. Schweitzer, Exeter, Marseilles, 16 cs.

PASTE BOARDS

Coy, Disbrow & Co., Pennland, Antwerp, 3 cs.

PAPER BOARD

Colmar Paper Corp., Pennland, Antwerp, 13 cs.

CARD BOARD

Nancy Crystal Co., De Grasse, Havre, 2 cs.; Coty Processing Co., De Grasse, Havre, 12 cs.

MISCELLANEOUS PAPER

Parsons & Whittemore, Inc., Ascania, Southampton 1 cs.; R. Wilson Paper Corp., Transylvania, Glasgow, 22 rolls, 66 cs.; J. Romer, Tai Ping, Kobe, 5 cs.; Corn Exchange Bank Trust Co., Tai Ping, Kobe, 5 cs.; Japan Paper Co., Pr. Hoover, Kobe, 14 cs.; Wedeman Godknecht & Lally, A. Ballin, Hamburg, 14 cs.; Astoria Press, A. Ballin, Hamburg, 28 cs.; Keller Dorian Paper Co., De Grasse, Havre, 4 cs.

RAGS, BAGGINGS, ETC.

——, Port Said Maru, Hamburg, 56 bls. rags; D. M. Hicks Inc., Ascania, Southampton, 4 bls. rags; Darmstadt Scott & Courtney, Ascania, Southampton, 29 bls. rags; J. Cohen Son & Co. Inc., Ascania, Southampton, 16 bls. rags; ——, Ascania, Southampton, 36 bls. paper stock; ——, Ascania, Southampton, 38 bls. waste paper; D. M. Hicks Inc., Pennland, Antwerp, 73 bls. dry paste; Amtorg Trading Corp., Scanstates, Leningrad, 388 bls. rags; ——, Exeter, Genoa, 15 bls. rags; Martanco Stamp Co., Georgic, Liverpool, 11 bls. waste paper; E. J. Keller Co. Inc., Excelsior, ——, 32 bls. rags.

GLUE STOCK, ETC.

——, Stuttgart, Bremen, 400 bags hide glue; ——, Leviathan, Bremen, 100 bags hide glue; ——, A. Ballin, Hamburg, 100 bags hide glue; ——, A. Ballin, Hamburg, 26 bags bone glue.

OLD ROPE

G. M. Graves Co. Inc., Ascania, Southampton, 80 coils; ——, Transylvania, Glasgow, 58 coils; Banco Coml Italiana Trust Co., Pennland, Antwerp, 116 coils; Banco Coml Italiana Trust Co., Saturnia, Trieste, 61 bls.; Banco Coml Italiana Trust Co., A. Ballin, Hamburg, 31 bls.; E. J. Keller Co. Inc., Exeter, ——, 283 coils.

CASEIN

——, De Grasse, Havre, 40 bags.

CHINA CLAY

——, Coelleda, Bristol, 700 bags, 60 tons; ——, Coelleda, Bristol, 30 cks., 7 tons; English China Clay Sales Corp., Exeter City, Fowey, 293 tons; J. W. Higman Co. Inc., Exeter City, Fowey, 60 cks., 30 tons.

WOOD PULP

Irving Trust Co., Stuttgart, Bremen, 300 bls. wood pulp; Castle & Overton, Inc., Malaren, Wiborg, 1,087 bls. wood pulp; Lagerloef Trading Co., Malaren, Kotha, 35 bls. sulphite; Lagerloef Trading Co., Malaren, Rauma, 2,687 bls. sulphite; Perkins Goodwin & Co., Fred. VIII, Oslo, 125 bls. sulphite, 25 tons; J. Andersen & Co., Stavangerfjord, Oslo, 125 bls. sulphite; E. M. Sergeant & Co., Stavangerfjord, Oslo, 150 bls. chemical pulp; Atterbury Bros. Inc., Stavangerfjord, Drammen, 400 bls. sulphite; Elof Hansson, Scanstates, Gdynia, 354 bls. wood pulp, 55 tons; Perkins Goodwin & Co., Scanstates, Gdynia, 975 bls. wood pulp, 204 tons; Castle & Overton, Inc., Scanstates, Wiborg, 1,160 bls. wood pulp, 231 tons; Perkins Goodwin & Co., Scanstates, Stockholm, 1,800 bls. chemical, 304 tons; Perkins Goodwin & Co., Scanstates, Stockholm, 300 bls. sulphite, 50 tons; J. Andersen & Co., Scanstates, Stockholm, 450 bls. sulphate, 76 tons; ——, A. Ballin, Hamburg, 125 bls. chemical, 25 tons; Castle & Overton, Inc., A. Ballin, Hamburg, 830 bls. wood pulp, 166 tons; Bulkley Dunton & Co., Erlangen, ——, 375 bls. wood pulp; Bulkley Dunton & Co., Milwaukee, ——, 500 bls. wood pulp.

PORTLAND IMPORTS

WEEK ENDING DECEMBER 3, 1932

Irving Trust Co., Malaren, Wiborg, 1,165 bls. sulphate; Lagerloef Trading Co., Malaren, Wiborg, 1,248 bls. sulphite; ——, Malaren, Wiborg, 624 bls. sulphite; ——, Malaren, Wiborg, 2,912 bls. sulphate; Lagerloef Trading Co., Malaren, Kotka, 830 bls. sulphite; Lagerloef Trading Co., Malaren, Rauma, 945 bls. sulphite; Lagerloef Trading Co., Malaren, Rauma, 1,201 bls. sulphate; Lagerloef Trading Co., Malaren, Rauma, 1,243 bls. mechanical pulp; Bulkley Dunton & Co., Bockenheim, —— 750 bls. wood pulp.

NEW LONDON IMPORTS

WEEK ENDING DECEMBER 3, 1932

H. Reeve Angel & Co., Inc., Malaren, Kotka, 91 rolls news print; ——, Malaren, Wiborg, 3,000 bls. sulphate.

BOSTON IMPORTS

WEEK ENDING DECEMBER 3, 1932

Castle & Overton, Inc., Malaren, Wiborg, 3,133 bls. wood pulp; Irving Trust Co., Malaren, Wiborg, 680 bls. sulphate; ——, Malaren, Wiborg, 1,872 bls. sulphite; Stone & Downer, Malaren, Kotka, 70 rolls news print; Lagerloef Trading Co., Malaren, Kotka 520 bls. mechanical pulp; Lagerloef Trading Co., Malaren, Kotka, 221 bls. sulphite; Lagerloef Trading Co., Malaren, Kotka, 650 bls. sulphate; Lagerloef Trading Co., Malaren, Rauma, 1,382 bls. sulphate; Lagerloef Trading Co., Malaren, Rauma, 372 bls. mechanical pulp; 1st Natl Bank of Boston, Winona County, Manchester, 108 coils old rope; Darmstadt Scott & Courtney, Winona County, Manchester, 44 bls. bagging; Webster & Atlas Natl Bank, Winona County, Liverpool, 42 bls. rags; ——, Winona County, Liverpool, 27 coils old rope; Bulkley Dunton & Co., Bockenheim, ——, 250 bls. wood pulp; Bulkley Dunton & Co., Weigand, ——, 375 bls. wood pulp.

WEEK ENDING NOVEMBER 26, 1932

E. Butterworth & Co., Inc., Black Eagle, Antwerp, 112 bags glue stock; G. F. Malcolm, Laconia, Liverpool, 32 cs. tissue paper; Chase National Bank, Pr. Garfield, Bombay, 174 bags glue stock; ——, Pr. Garfield, Bombay, 160 bags glue stock; E. J. Keller Co. Inc., Black Eagle, ——, 90 bls. bagging; E. J. Keller Co. Inc., Wiegand, ——, 334 bls. wood pulp.

WEEK ENDING NOVEMBER 19, 1932

1st National Bank of Boston, Hokuroko Maru, Kobe, 45 bls. rags; Bulkley Dunton & Co., Elsa Menzell, ——, 1,025 bls. wood pulp; Bulkley Dunton & Co., Aachen, ——, 750 bls. wood pulp; Bulkley Dunton & Co., Ditmar Koel, ——, 1,750 bls. wood pulp; Bulkley Duton & Co., Trolleholm, ——, 375 bls. wood pulp; Bulkley Dunton & Co., Kiel, ——, 625 bls. wood pulp; E. J. Keller Co. Inc., Back Hawk, ——, 90 bls. bagging; E. J. Keller Co. Inc., Kiel, ——, 373 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING DECEMBER 3, 1932

Castle & Overton, Inc., Indep. Hall, Bordeaux, 129 bls. rags; Lang Paper Co., Indep. Hall, Bordeaux, 134 bls. rags; Keene & Arkus, Indep. Hall, Bordeaux, 590 bls. rags; Lang Paper Co., Indep. Hall, St. Nazaire, 224 bls. rags; Continental Bank Trust Co., Indep. Hall, St. Nazaire, 57 bls. rags; Keene & Arkus, Indep. Hall, St. Nazaire, 618 bls. rags; Castle & Overton, Inc., Indep. Hall, St. Nazaire, 266 bls. rags; E. J. Keller Co. Inc., Indep. Hall, ——, 83 bls. rags; E. J. Keller Co. Inc., Wytheville, ——, 147 bls. rags; E. J. Keller Co. Inc., Scanstates, ——, 360 bls. wood pulp; Castle & Overton, Inc., Scantates, Wiborg, 802 bls. wood pulp, 160 tons; ——, Scanstates, Wiborg, 5,736 bls. sulphite, 1,031 tons; Paper Manfg Co., Scanstates, Wiborg, 82 rolls news print; Perkins Goodwin & Co., Scanstates, Stockholm, 600 bls. sulphite, 101 tons; English China Clay Sales Corp., Exeter City, Fowey, 1,689 tons, 9 cwt. china clay; English China Clay Sales Corp., Exeter City, Fowey, 100 cks, 50 tons china clay; English China Clay Sales Corp., Exeter City, Fowey, 133 bags, 10 tons china clay; Moore & Munger, Exeter City, Fowey, 200 tons, 4 cwt. china clay; Bulkley Dunton & Co., Bockenheim, ——, 250 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING DECEMBER 3, 1932

Congoleum-Nairn Co., Indep. Hall, Bordeaux, 400 bls. rags; Congoleum-Nairn Co., Indep. Hall, St. Nazaire, 269 bls. rags; Bulkley Dunton & Co., Elsa Menzell, ——, 6,000 bls. wood pulp.

WEEK ENDING NOVEMBER 26, 1932

Castle & Overton, Inc., Tortugas, Wiborg, 4,701 bls. wood pulp; Gottesman & Co. Inc., Tortugas, Wiborg, 300 bls. woodpulp; ——, Tortugas, Wiborg, 6,240 bls. sulphite; ——, Tortugas, Wiborg, 690 bls. sulphate; Gottesman & Co. Inc., Erlangen, Sweden, 250 bls. wood pulp; Parsons & Whittemore, Inc., Elsa Menzell, ——, 150 bls. mechanical pulp; Parsons & Whittemore, Inc., Cubano, ——, 600 bls. sulphite.

WEEK ENDING NOVEMBER 19, 1932

Congoleum Nairn Co., McKeesport, Havre, 1,299 bls. rags; Bulkley Dunton & Co., Elsa Menzell, ——, 4,000 bls. wood pulp 1,219 tons.

Our Trade Mark

represents quality and service developed by half a century's laboratory and manufacturing experience.

For your own insurance be sure that our Trade Mark appears on your packages.

HELLER & MERZ CORPORATION
90 West Street, New York, N. Y.

BOSTON 35 Hartford St. | CHICAGO 146 W. Kinzie St. | SPRINGFIELD, MASS. 40 Albert St.

PHILADELPHIA—South St. and Delaware Ave.
Factories—Newark, N. J. and Bound Brook, N. J.

A UNIT OF AMERICAN CYANAMID COMPANY

ALUMINUM SULPHATE
(PAPER MAKERS' ALUM)

THE Standard Purity of this Company's product is maintained in an uncompromising degree, regardless of whether successive deliveries are from one or various of the Company's Works.

GENERAL CHEMICAL CO.
40 Rector Street, New York, N. Y.
Cable Address: Lycurgus, N. Y.
Sales Offices: Buffalo, Chicago, Cleveland, Denver, Los Angeles, Philadelphia, Pittsburgh, Providence, San Francisco, St. Louis.
In Canada: The Nichols Chemical Company, Ltd. Montreal, P. Q.

Also BAKER & ADAMSON C.P. ACIDS, REAGENTS and FINE CHEMICALS

West Virginia Pulp and Paper Company

Manufacturers of

SUPERCALENDERED and MACHINE FINISHED BOOK and LITHOGRAPHIC PAPERS

Offset, Envelope, Bond, Writing, Cover and Music Paper, Index Bristol, Post Card and Label Papers

High Grade Coated Book

also

KRAFT WRAPPING AND KRAFT ENVELOPE

Bleached Spruce Sulphite Pulp, Soda and Kraft Pulp

230 Park Ave. New York | 35 East Wacker Drive Chicago
503 Market St., San Francisco, Cal.
Sixth and Chestnut Sts., Philadelphia, Pa.

THE DRAPER FELTS

All kinds and styles of Felts for all kinds and styles of Papers.

Write us about your Felt problems and let us help you reduce your Felt Costs—we will call anywhere at any time.

DRAPER BROS. COMPANY
CANTON, MASS.
Woolen manufacturers since 1856

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, December 7, 1932.

Conditions in the local paper market are little changed. Demand for the various standard grades of paper is only moderate. Supplies are moving into consumption slowly. Inquiries for future needs are limited. The price situation continues irregular.

Production of news print paper in the United States and Canada is being maintained in sufficient volume to take care of current requirements. Efforts to stabilize the industry are still being made by leading executives, although progress is necessarily slow.

The paper board market is moderately active. Demand for box board is well maintained. Prices remain unchanged. The fine paper market is fairly steady. Tissues are seasonally active. The coarse paper market is spotty. Kraft wrapping paper prices are easy.

Mechanical Pulp

Trading in the ground wood market is restricted. Prices are slightly easier. No. 1 imported moist mechanical pulp is now quoted at from $16.00 to $18.00 on dock, Atlantic ports. No. 1 domestic ground wood is selling at from $16.00 to $22.00, f.o.b. mill.

Chemical Pulp

Quietness reigns in the chemical pulp market. Prices are softer. Imported bleached sulphite is now offered at from $1.80 to $2.25 and No. 1 strong unbleached at from $1.35 to $1.60, on dock, Atlantic ports. Domestic news sulphite is selling at from $1.40 to $1.65, f.o.b. pulp mill.

Old Rope and Bagging

Most of the business transacted in the old rope market during the past week was routine. Demand for both domestic and imported old manila rope is restricted. Small mixed rope is dull. The bagging market is listless. Prices are nominal.

Rags

Paper mill demand for domestic rags is light at present. Cotton rags are only moving slowly. Roofing grades are somewhat quieter. Prices are unsettled. The imported rag market is still affected by the fluctuations of foreign currencies.

Waste Paper

Demand for the lower grades of paper stock has fallen off and prices are weaker. Strictly folded news is now offered at from .40 to .45, f.o.b. New York, a decline of five cents. The better grades of waste paper are holding up well. Prices are holding to formerly quoted levels.

Twine

Business in the twine market is fairly active. Demand for the various grades is seasonal. There is a moderate number of inquiries around. The outlook for the future is considered promising. Prices are generally unchanged.

TO ASK COUNTERVAILING DUTY

(Continued from page 15)

growing will be made into county forests and planted with the aid of the Wisconsin Conservation Commission.

Application will be filed with the conservation commission to enter these lands under the state forest crop law, exempting them from taxation until the timber is full grown and cut. The state will pay ten cents an acre annually to Wood county, this money to be used for tree planting and cultivation. Other entries of reforestation lands in northern Wisconsin also are expected when the commission meets.

With lands already devoted to tree growing by the Nekoosa-Edwards and Consolidated companies, the additions made by the county will be of inestimable help in assuring adequate future pulp wood supplies.

A tree nursery of twenty acres has been located in Wood county, near Wisconsin Rapids, on land donated by the Nekoosa-Edwards company. Approximately 800 beds were seeded during the past several months. About 10,000 trees will be planted annually until the capacity of 5,000,000 is reached.

General News of the Industry

J. J. Plzak, of the Consolidated Water Power and Paper Company, is in charge of a series of safety meetings to be conducted at Wisconsin Rapids, Wis., during the next few weeks. He is chairman of the Wisconsin Rapids Safety Council. The first speaker was R. C. Salisbury, safety engineer of the Hardware Mutual Casualty Company, Stevens Point, Wis.

Thefts of supplies from the store of the Wausau Paper Mills Company at Brokaw, Wis., were stopped with the arrest of several men, one of whom pleaded guilty. Sugar, cloth and other articles were taken.

Partly through efforts of F. E. Sensenbrenner, assistant secretary of the Kimberly-Clark Corporation, Neenah, Wis., a paved highway is to be provided between Appleton, Wis. and Neenah for the company's Lakeview mill. An appropriation of $125,000 has been made by the state highway commission to pave Highway No. 125, used frequently by the mill in transporting its products and supplies.

Announcement is made of the marriage of Frank B. Whiting, Neenah, Wis., and Miss Gladys M. Searle, Chicago. The ceremony took place at the rectory of Trinity Episcopal church, Oshkosh, Wis., last week, with Mrs. Gertrude Chapman, Chicago, and C. W. Spickerman, Menasha, Wis., as attendants. A wedding trip to Canada in a private railroad car was arranged and the couple will reside at Neenah upon their return. Mr. Whiting is president of the George A. Whiting Paper Company, Menasha, Wis., and vice-president of the Whiting-Plover Paper Company, Stevens Point, Wis.

When his arm became caught in the rollers of a paper machine, Irving Schmidt, 32, was instantly killed in an accident last week at the Grandfather Falls Paper Company, Merrill, Wis. His head was crushed before the machine could be stopped.

WOOD PULP
AGENTS

PRICE & PIERCE, Ltd.,

60 EAST 42nd ST.
NEW YORK

Asten Asbestos
DRYER FELTS
PATENTED

Cut your Dryer Felt Costs

—by using Asten Asbestos Felts. They not only last from 3 to 6 times longer than other felts, but have additional features that make them economical.

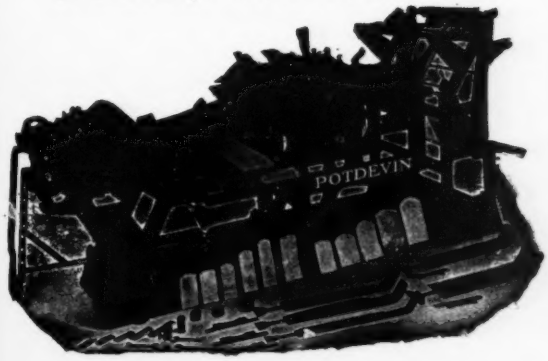
We will gladly send you copies of Certified Performance Surveys that tell what other mills have saved by using Asten Asbestos Felts.

Made in U. S. A.

ASTEN-HILL
Manufacturing Company
PHILADELPHIA

"Grif-Ho"
DISPENSING CABINETS
AND
FIXTURES
THE STANDARD OF THE PAPER TRADE
GRIFFITH-HOPE CO.
WEST ALLIS, WIS.

NEW **POTDEVIN** PRINTING
SPECIALTY BAG MACHINERY



(Model 290) 2-Color Printing Flat and Square
40 Other Models
PAPER BAG MACHINERY

POTDEVIN MACHINE CO.

1223 38th Street, Dept. 4, Brooklyn, N. Y., U. S. A.
Phones: Windsor 1700-1701-1702

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, December 7, 1932.

BLANC FIXE.—The blanc fixe market is moderately active. Prices are holding to schedule. The pulp is quoted at from $42.50 to $45.00 per ton, in bulk; while the powder is still selling at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER.—Steadiness prevails in the bleaching powder market. Shipments against contract are moving rather slowly at present. Prices remain unchanged. Bleaching powder is quoted at from $1.75 to $2.00 per 100 pounds, in drums, at works.

CASEIN.—The casein market is practically unchanged. Domestic standard ground is quoted at 7 cents and finely ground at 8 cents per pound. Argentine standard ground is selling at 8 cents and finely ground at 8½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA—Demand for caustic soda is fairly persistent. Prices are generally holding to schedule. Solid caustic soda is quoted at from $2.55 to $2.60; while the flake and the ground are selling at from $2.95 to $3.00 per 100 pounds, in large drums, at works.

CHINA CLAY.—The china clay market is displaying a fairly strong undertone. Prices generally remain unchanged. Imported china clay is quoted at from $10 to $15 per ton, ship side; while domestic paper making clay is selling at from $5 to $12 per ton, at mine.

CHLORINE.—The chlorine market is fairly active. Contracts for the coming year are being booked in good volume. Prices are holding to schedule. Chlorine is quoted at $1.55 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—No radical changes were reported in the rosin market. The grades of gum rosin used in the mills are quoted at from $3.65 to $3.75 per 280 pounds, in barrels, at works; wood rosin is selling at $2.60 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—The salt cake market is marking time. Prices remain unchanged. Salt cake is quoted at from $15 to $16; chrome salt cake at from $12 to $13 per ton, in bulk, at works; while imported salt cake is selling at from $14 to $15 per ton, ship side.

SODA ASH.—Supplies of soda ash are moving into consumption in good volume. The new contract prices are holding up well. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.05; in bags, $1.30; and in barrels, $1.43.

STARCH.—Conditions in the starch market are fairly satisfactory. There have been no further price changes since the preceding week. Special paper making starch is quoted at $2.19 per 100 pounds, in bags; and at $2.46 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—The bulk of the business transacted in the sulphate of alumina market was routine. Commercial grades are still quoted at from $1.25 to $1.40; while iron free is selling at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market continues steady. Sulphur is quoted at 18 per long ton, on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton on any smaller quantity over that period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—Paper mill demand for talc is rather restricted. Prices are holding to formerly quoted levels. Domestic talc is quoted at from $16 to $18 per ton, in bulk, at mine; while imported talc is selling at from $18 to $22 per ton, in bags, ship side.

Market Quotations

Paper

(F. o. b. Mill)		
Ledgers	6.50	@38.00
Bonds	4.50	@53.25
Index	6.00	@12.00
Writings—		
Extra Superfine	6.50	@15.00
Superfine	6.25	@14.75
Tub sized	4.50	@ 7.00
Engine sized	4.00	@ 5.00
Book, Cased—		
S. & S. C.	5.25	@ —
M. F.	3.75	@ 5.00
Coated and Enamel	6.25	@ 9.75
Lithograph	6.75	@11.25
Tissues—Per Ream—		
White No. 1	.50	@ .70
Anti-Tarnish M. G. only	.65	@ .70
Colored	.70	@ .90
White No. 2	.55	@ .60
Kraft	.65	@ .70
Manila	.55	@ .60
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.00	@ 5.25
No. 2 Wood	3.50	@ 4.00
Butchers	3.37½	@ —
Fibre Papers—		
No. 1 Fibre	4.25	@ 5.50
No. 2 Fibre	4.00	@ 4.75
Common Bogus	1.50	@ 3.00
Screenings	2.00	@ 3.00
Card Middies	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs., No. 1	.09¼	@ —
No. 2	.11¼	@ —
Bleached, basis 20 lbs.	.11¼	@ —
(Delivered New York)		
News, per ton—		
Roll, contract	45.00	@ —
Rolls, spot	45.00	@ —
Sheets	50.00	@ —
Side Runs	30.00	@35.00
Kraft—		
No. 1 Domestic	4.75	@ 6.00
No. 2 Domestic	2.50	@ 2.75
Southern	2.25	@ 2.50
Imported	2.75	@ 3.50
Boards—per ton—		
News	27.50	@30.00
Straw	29.50	@31.50
Chip	25.00	@27.50
Binders' Boards	62.00	@70.00
Kraft Liner	40.00	@45.00
Standard 85 Test Jute Liner	27.00	@29.50
Sgl. Mla. Ll. Chip	37.50	@40.00
(F. o. b. Mill)		
Wood Pulp Boards	70.00	@80.00

Mechanical Pulp

(On Dock)

No. 1 Imported—		
Moist	16.00	@18.00
Dry	17.00	@20.00
(F. o. b. Mill)		
No. 1 Domestic	16.00	@22.00

Chemical Pulp

(On Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	1.80	@ 2.25
Easy Bleaching	1.60	@ 1.75
No. 1 strong unbleached	1.35	@ 1.60
Mitscherlich unbleached	1.55	@ 1.75
No. 2 strong unbleached	1.25	@ 1.35
No. 1 Kraft	1.40	@ 1.65
No. 2 Kraft	1.30	@ 1.40
Sulphate—		
Bleached	1.85	@ 2.15
(F. o. b. Pulp Mill)		
Sulphite (Domestic and Canadian)—		
Bleached	1.75	@ 3.75
Easy Bleaching	1.75	@ 1.90
News	1.40	@ 1.65
Mitscherlich unbleached	2.00	@ 2.55
Kraft (Domestic)	1.25	@ 2.75
(Delivered Paper Mills)		
Soda Bleached	2.00	@ —

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	4.00	@ 4.25
New White, No. 2	3.00	@ 3.25
Silesias No. 1	3.75	@ 4.00
New Unbleached	5.50	@ 6.00
New Soft Blacks	2.75	@ 3.00
Blue Overall	3.00	@ 3.50
Fancy	1.50	@ 1.75
Washable	1.15	@ 1.40
Mixed Khaki Cuttings	2.50	@ 3.00
Pink Corset Cuttings	2.75	@ 3.25
O. D. Khaki Cuttings	3.00	@ 3.25
Men's Corduroy	1.00	@ 1.25
New Mixed Blacks	2.25	@ 2.50

Old Rags

White, No. 1—		
Repacked	3.00	@ 3.50
Miscellaneous	2.00	@ 2.25
White, No. 2—		
Repacked	1.75	@ 2.00
Miscellaneous	1.50	@ 1.75
Thirds and Blues—		
Repacked	1.50	@ 1.75
Miscellaneous	1.00	@ 1.25
Black Stockings	2.00	@ 2.25
Roofing Rags—		
No. 1	.53	@ .58
No. 2	.48	@ .53
No. 3	.43	@ .48
No. 4	.38	@ .43
No. 5A	.33	@ .38

Foreign Rags

New Rags

New Dark Cuttings	1.40	@ 1.50
New Mixed Cuttings	1.60	@ 1.75
New Light Silesias	3.00	@ 3.25
Light Flannelettes	2.50	@ 2.75
Unbleached Cuttings	4.75	@ 5.25
New White Cuttings	4.00	@ 4.25
New Light Oxfords	3.00	@ 3.25
New Light Prints	1.85	@ 2.25

Old Rags

No. 1 White Linens	5.25	@ 5.50
No. 2 White Linens	4.50	@ 4.75
No. 3 White Linens	3.25	@ 3.75
No. 4 White Linens	1.75	@ 2.25
No. 1 White Cotton	3.50	@ 3.75
No. 2 White Cotton	2.75	@ 3.25
No. 3 White Cotton	2.25	@ 2.50
No. 4 White Cotton	1.40	@ 1.50
Extra Light Prints	1.80	@ 2.00
Ord. Light Prints	1.60	@ 1.75
Med. Light Prints	1.40	@ 1.55
Dutch Blue Cottons	1.35	@ 1.40
French Blue Linens	1.80	@ 1.90
German Blue Linens	1.70	@ 1.80
German Blue Cottons	1.20	@ 1.25
Checks and Blues	1.25	@ 1.30
Lindsay Garments	.75	@ .80
Dark Cottons	.70	@ .75
Old Shopperies	.55	@ .60
New Shopperies	.60	@ .65
French Blues	1.25	@ 1.30

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

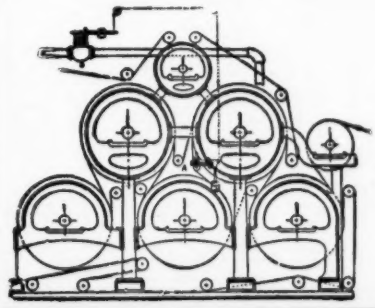
Gunny No. 1—		
Foreign	1.00	@ 1.10
Domestic	1.15	@ 1.25
Wool Tares, light	.80	@ .85
Wool Tares, heavy	.80	@ .85
Bright Bagging	.75	@ .80
Small Mixed Rope	.80	@ .90
Manila Rope—		
Foreign	1.45	@ 1.50
Domestic	1.50	@ 1.75
New Burlap Cut	1.65	@ 1.75
Hessian Jute Threads—		
Foreign	2.60	@ 2.75
Domestic	2.80	@ 3.00

Old Waste Papers

(F. o. b. New York)

Shavings—		
White Envelope Cuttings	1.70	@ 1.80
Ordinary Hard White No. 1	1.55	@ 1.65
Hard White No. 2	1.30	@ 1.40
Soft White No. 1	1.40	@ 1.50
Flat Stock—		
Stitchless	.55	@ .65
Overissue Mag.	.55	@ .65
Solid Flat Book	.50	@ .55
Crumpled No. 1	.40	@ .45
Solid Book Ledger	1.50	@ 1.75
Ledger Stock	.45	@ .55
New B. B. Chips	.20	@ .25
Manilas—		
New Env. Cut	1.25	@ 1.35
New Cuttings	1.00	@ 1.05
Extra No. 1 old	.80	@ .90
Print	.35	@ .40
Bogus Wrapper	.30	@ .35
Container	.25	@ .30
Old Kraft Machine— Compressed bales	.75	@ .85
News—		
No. 1 White News	1.05	@ 1.15
Strictly Overissue	.50	@ .55
Strictly Folded	.40	@ .45
No. 1 Mixed Paper	.17½	@ .22½

The Pickles Drying Regulator



WE ARE SAFE IN OUR PROPOSITION

YOU'LL MAKE NO MISTAKE IN ACCEPTING IT

Pickles Drying Regulator

will do everything we claim for it and more. The test costs you nothing until you are satisfied. Many mills tried one and now have every machine equipped. Write for list of users and other information.

W. F. PICKLES Buckland, Conn.

ALLIGATOR
STEEL BELT LACING

Scientific Joining Alligator Steel Belt Lacing holds the belt in a vise-like compression grip. Prevents ply separation at belt ends. The smooth flexible joint is reliable in service and has great surplus strength. It rocks on oval faces of the sectional hinge pin.

Quickly and Easily Applied with only a Hammer

Combines the efficiency of an endless belt and the convenient take-apart feature. In general use on light, medium and heavy belts of all types. Made also in "monel metal". Eleven sizes. Sold the world over.

FLEXIBLE STEEL LACING COMPANY
4689 Lexington Street Chicago, Illinois
In England at 135 Finsbury Pavement, London, E. C. 2

To avoid imitations look for the Alligator on the yellow labeled box and stamped on the lacing.

SOLVAY
PRODUCTS

SODA ASH
CAUSTIC SODA

Liquid Chlorine

Contract or Spot Delivery
In tank cars and multiple unit cars.
Write for Prices

SOLVAY SALES CORPORATION
Alkalies and Chemical Products Manufactured by The Solvay Process Company
61 Broadway New York
Boston Syracuse Chicago Pittsburgh Detroit Cincinnati Kansas City Indianapolis Cleveland Philadelphia St. Louis

* Trade Mark Reg. U. S. Pat. Off.

LAND O'LAKES
CASEIN

High quality Casein made under strict laboratory control. Excellent solubility. Satisfactory viscosity. Write for sample and quotations.

LAND O' LAKES CREAMERIES, INC., MINNEAPOLIS, MINN.
New York City - Chicago - Boston - Philadelphia - Pittsburgh - Syracuse

Twines

(F. o. b. Mill)

Cotton—			
B. C., 18 basis	.30	@	.32
No. 1	.20	@	.22
No. 2	.19	@	.20
No. 3	.17	@	.18
A. Italian, 18 basis	.36	@	.37
Finisned Jute—			
Dark, 18 basis	.18	@	.20
Light, 18 basis	.20	@	.22
Jute Wrapping, 3-6 Ply—			
No. 1	.15½	@	.16½
No. 2	.11¾	@	.12¾
Tube Rope—			
4-ply and larger	.10¼	@	.10¾
Fine Tube Rope—			
4-ply	.12¼	@	.12¾
3-ply	.13¼	@	.13¾
2-ply	.14¼	@	.14¾
Pape Makers Twine			
Balls	.09¼	@	.11¼
Box Twine, 2-3 ply	.11¼	@	.12¾
Jute Rope	.09	@	.10
White Hemp	.12¼	@	.12¾
Java Sisal—			
No. 1 Basis	.10	@	—
No. 2 Basis	.09	@	—
New Zealand Sisal	.10	@	—
Sisal Lath Yarn—			
No. 1	.12	@	.14
No. 2	.10	@	.12
Manila Twine	.23	@	.28

CHICAGO

Paper

(F. o. b. Mill)

Rag Bond	.30	@	.53¼
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.04	@	.11
Superfine Writing	.18	@	.24
No. 1 Fine Writing	.14	@	.18
No. 2 Fine Writing	.12	@	.14
No. 3 Fine Writing	.07	@	.18
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¼	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
No. 1 Manila	.04½	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.03¾	@	.03¾
No. 1 Kraft	3.50	@	4.50
Southern Kraft	2.62½	@	—
No. 2 Kraft	2.62½	@	—
Wood Tag Boards	.04¾	@	.06½
Sulphite Screenings	.03	@	.03½
Manila Tissue	.07	@	.07½
White Tissue	.07½	@	.07½

(Delivered Central Territory)

News, per ton—			
Rolls, contract	45.00	@	—
Sheets	50.00	@	—
Boards, per ton—			
Plain Chip	27.50	@	—
Solid News	30.00	@	—
Manila Lined Chip	37.50	@	—
Patent coated	47.50	@	—
Container Lined—			
85 Test	50.00	@	55.00
100 Test	55.00	@	60.00

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope cuttings	1.50	@	1.55
No. 1 Hard White	1.40	@	1.45
No. 1 Soft White	1.00	@	1.10
Ledger & Writings	.45	@	.55
Solid Books	.25	@	.30
Blanks	1.00	@	1.05
Krafts	.70	@	.80
New Kraft Cuts	1.15	@	1.25
Manila Env. Cuts	1.25	@	1.30
Ex. No 1 Manila	.90	@	1.00
Print Manila	.30	@	.35
Overissue News	.30	@	.35
Old Newspapers—			
No. 1	.25	@	.30
Mixed Papers—			
No. 1	.15	@	.20
Roofing Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(F. o. b. Mill)

Bonds	.04	@	.40
Ledgers	.06	@	.40
Writings—			
Superfine	.10	@	.18
Extra Fine	.15	@	.26
Fine	.15	@	.26
Fine, No. 2	.10	@	.25
Fine No. 3	.05½	@	.18
Book, M. F.	.04¾	@	.07
Book, S. S. & C.	.05	@	.07½
Book, Coated	.06	@	.16
Coated Lithograph	.06	@	.11
Label	.07	@	.11
No. 1 Jute Manila	.06	@	.09
Manila Sul., No. 1	.03	@	.05
Manila No. 2	.03	@	.04
No. 1 Kraft	.05¼	@	.06
No. 2 Kraft	.03¾	@	.04¼
Southern Kraft No. 1	—	@	.03¾
Southern Kraft No. 2	—	@	.02¾
Common Bogus	.03	@	.04

(Delivered Philadelphia)

News Print Rolls	46.00	@	—
Straw Board	32.00	@	—
News Board	30.00	@	—
Chip Board	30.00	@	—
Wood Pulp Board	70.00	@	80.00
Binder Boards—			
No. 1, per ton	73.00	@	75.00
No. 2, per ton	62.00	@	65.00
Carload lots	60.00	@	65.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1 50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.03½	@	.04
New White, No. 2	.02½	@	.04
Light Silesias	.02½	@	.03
Silesias, No. 1	.03	@	.03½
Black Silesias, soft	.02½	@	.03
New Unbleached	.05	@	.05½
Washable, No. 1	.01	@	.01½
Blue Overall	.03	@	.03½
Cottons—According to grades—			
Washable, No. 2	.01	@	.02
New Blue	.01	@	.02
Fancy	.01½	@	—
New Black Soft	.02	@	.03
New Light Seconds	.01	@	.02
New Dark Seconds	1.50	@	1.75
Khaki Cuttings—			
No. 1 O.D.	.03	@	.03½
No. 2 Mixed	.02½	@	.03
Corduroy	.02	@	.02½
New Canvas	.03½	@	.04
New Black Mixed	.02½	@	.03

Domestic Rags (Old)

White No. 1—			
Repacked	2.50	@	3.00
Miscellaneous	1.75	@	2.00
M. G.	3.00	@	3.50
Thirds and Blues—			
Miscellaneous	1.00	@	1.25
Repacked	1.50	@	1.75
Black Stockings (Export)	2.00	@	3.50
Roofing Stock—			
Foreign No. 1	.50	@	.75
Repacked	.70	@	.80

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.25	@	1.50
Domestic	1.50	@	—
Manila Rope	2.00	@	2.25
Sisal Rope	1.25	@	1.50
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	1.25	@	1.50
No. 2	.80	@	1.00
Wool Tares, heavy	2.75	@	—
Mixed Strings	1.15	@	1.25
No. 1 New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.00	@	2.25

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	1.60	@	1.70
No. 2 Hard White	1.50	@	1.60
No. 1 Soft White	1.40	@	1.45
No. 2 Soft White	1.10	@	1.15
No. 1 Mixed	.50	@	.60
No. 2 Mixed	.40	@	.50
Solid Ledger Stock	1.00	@	1.10
Writing Paper	.65	@	.70
No. 1 Books, heavy	.55	@	—
No. 2 Books, light	.40	@	—
No. 1 New Manila	1.10	@	1.15
No. 1 Old Manila	.60	@	.65
Print Manila	.40	@	.45
Container Manila	.35	@	.40
Old Kraft	.85	@	.90
Common Paper	.20	@	.25
No. 1 Mixed Paper	.25	@	.30
Straw Board, Chip	.25	@	.30
Binders Board, Chip	.25	@	.30
Corrugated Board	.35	@	.45
Overissue News	.45	@	.55
Old Newspaper	.30	@	.35

BOSTON

Paper

(F o. b. Mill)

Ledgers—			
Sulphite	.06	@	.12½
Rag Content	.12	@	.36
All Rag	.36	@	.52½
Bonds—			
Sulphite	.05½	@	.11½
Rag Content	.12	@	.30
All Rag	.36	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06¾
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	—	@	.04¾
No. 2 Kraft	—	@	.02¾

(F. o. b. Boston)

Southern Kraft	—	@	.02½

(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots.)

Common Bogus	.02	@	.02¾

(Delivered New England points)

News Print, rolls	44.50	@	—
Straw Board, rolls	.009	@	35.00
Straw Board in Sheets, basis 35x to 70s	—	@	40.00
Filled News Board	—	@	30.00
Chip Board	27.50	@	—
Chip Board (Creasing)	27.50	@	30.00
Single Manila Lined Chip	—	@	37.50
Single White, Patent Coated News Board—Bender	45.00	@	55.00
Wood Pulp Board	70.00	@	75.00
Binder Boards	62.00	@	75.00

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Soft White	1.55	@	1.65
No. 1 Old Manila	.50	@	.60
No. 2 Mixed	.50	@	.55
No. 1 Mixed	.75	@	.85
Solid Ledger Books	1.20	@	1.40
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.60	@	.70
No. 1 Books, heavy	.55	@	.65
No. 1 Books, light	—	@	.30
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env. Cuttings	1.25	@	1.30
No. 1 Old Manila	.55	@	.65
White Blank News	.90	@	.95
No. 1 Kraft	.75	@	.85
Manila	.80	@	.90
No. 1 Mixed Papers	—	@	.15
Print Manila	.30	@	.40
Overissue News	.35	@	.45
Old Newspapers	.35	@	.40
Box Board, Chip	.17½	@	.20
Corrugated Boxes	.20	@	.25
Screening Wrappers	.25	@	.32½

Bagging

(F. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.00
Domestic	.70	@	.75
Manila Rope—			
Foreign	1.25	@	1.45
Domestic	—	@	1.80
Transmission Rope	—	@	.90
Mixing String	—	@	.30
Jute Rope	—	@	.75
Jute Carpet Threads	—	@	.10
Bleachery Burlap	1.75	@	2.00
Scrap Burlap	.60	@	1.00
No. 1 Scrap Burlap	.75	@	.80
Scrap Sisal	.90	@	—
Scrap Sisal for shredding	—	@	.90
Wool Tares, heavy	.65	@	.75
New Burlap Cutting	.75	@	.90
Australian Wool Pouches	2.00	@	—
Heavy Baling Bagging	.90	@	1.10
Paper Mill Bagging	.50	@	.60
Bagging No. 2	.20	@	.25
No. 1 Burlap	1.75	@	2.00

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	—	@	.01½
New White No. 1	.03¾	@	.04
New White No. 2	.02¾	@	.03¼
Silesias No. 1	—	@	.03
New Black Silesias	.02½	@	.02¾
New Unbleached	.05	@	.05¼
Fancy	—	@	.02½
Washable	—	@	.01¾
Cottons—According to grades—			
Blue Overalls	—	@	.03¾
New Black, soft	.04	@	.04½
Khaki Cuttings	.03	@	.03½
O. D. Khaki	.03½	@	.03¾
Corduroy	.02¾	@	.03
New Canvas	—	@	.05
B.V.D. Cuttings	.04	@	.04¼

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	3.00	@	3.50
Miscellaneous	2.00	@	2.25
White No. 2—			
Repacked	.02¼	@	02½
Miscellaneous	.02	@	.02¼
Twos and Blues	.90	@	1.00
Thirds and Blues—			
Repacked	.75	@	.85
Miscellaneous	.70	@	.75
Black Stockings	2.00	@	2.25
Roofing Stock—			
No. 1	.35	@	.40
No. 2	.30	@	.35
No. 3	.25	@	.30

Foreign Rags

(F. o. b. Boston)

Dark Cottons	.50	@	.60
New No. 1 White Shirt Cuttings	3.75	@	4.00
Dutch Blues	1.25	@	1.50
New Checks & Blues	2.25	@	2.50
Old Fustians	—	@	.75
Old Linsey Garments	.55	@	.65

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.10¼	@	—
No. 2 Sulphite	.08½	@	—
No. 1 Colored	.10¼	@	—
No. 2 Colored	.09	@	.10½
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09	@	.09½
Book—			
No. 1 M. F. (Carloads)	6.65	@	—
No. 3 M. F. (Carloads)	6.20	@	—
No. 4 M. F. (carloads)	5.25	@	—
No. 1 S. C. (carloads)	7.15	@	—
No. 3 S. C. (carloads)	6.65	@	—
No. 4 S. C. (carloads)	5.70	@	—
No. 1 Coated and Litho	12.50	@	—
No. 2 Coated and Litho	11.50	@	—
No. 3 Coated and Litho	10.00	@	11.50
Coated tinted	14.00	@	—
Wrapping—			
Rag Brown	4.40	@	—
White Wrap	2.00	@	—
"B" Manila	4.90	@	—
No. 1 Manila	5.40	@	—
Fiber	5.40	@	—
Kraft, M. F.	5.75	@	—
Kraft No. 2	5.40	@	—

(F.O.B. Cars Toronto)

News, per ton—			
Rolls (contract)	45.50	@	—
Sheets	50.50	@	—

Pulp

(F. o. b. Mill)

Ground Wood	18.00	@	20.00
Sulphite easy bleaching	40.00	@	—
Sulphite, news grade	38.00	@	—
Sulphite, bleached	48.00	@	58.00
Sulphate	50.00	@	—

Old Waste Paper

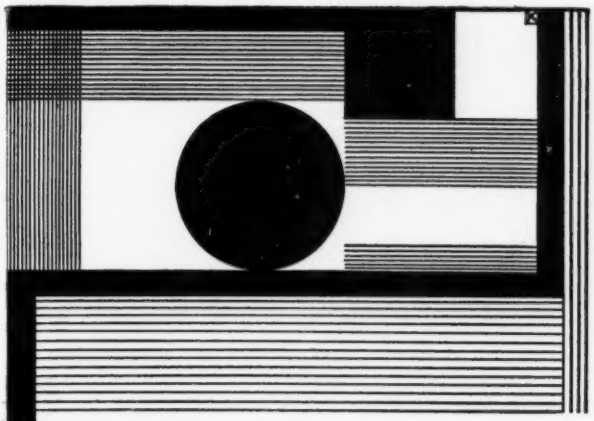
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	1.80	@	—
Soft White	1.40	@	—
White Blk. News	1.25	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	—
Light and Crumpled Book Stock	.80	@	—
Ledgers and Writings	1.00	@	—
Manilas—			
New Manila Cut	1.25	@	—
Printed Manilas	.55	@	—
Kraft	1.75	@	—
News and Scrap—			
Strictly Overissue	.50	@	—
Strictly Folded	.50	@	—
No. 1 Mixed Paper	.40	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	09½	@	.10
Fancy Shirt Cuttings	.06	@	.06½



BE
COLOR WISE
and use
GENERAL'S DYESTUFFS
WHY?

A dyestuff for every requirement carefully standardized

Efficient and accurate laboratory and technical service

Localized distributing branches

GDC

GENERAL DYESTUFF CORPORATION

230 FIFTH AVE., NEW YORK, N. Y.

Boston, Mass.
Providence, R. I.
Philadelphia, Pa.
Portland, Oregon
Charlotte, N. C.
Chicago, Ill.
San Francisco, Cal.

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

SIXTY-FIRST YEAR

Published Every Thursday by the
LOCKWOOD TRADE JOURNAL CO., Inc.

GEO. S. MACDONALD, President. J. BANNINGA, Sec.-Treas.

Published at 34 No. Crystal St., East Stroudsburg, Pa.
Executive and Editorial Offices: 15 West 47th Street, New York
Chicago Office: 123 West Madison St.

TABLE OF CONTENTS

Copyright, 1932, by the Lockwood Trade Journal Co., Inc.

Asks Bids on 42,000,000 Pounds of Paper..... 11
News Print Negotiations Progress..... 12
Mills Want More Tonnage 12
Seabury S. Gould Dies of Pneumonia 12
Activities of Fox River Valley Mills..... 14
Working for Countervailing Duties..... 14
Nekoosa-Edwards Pushes Mill Addition..... 14
Dr. Rue Addresses Vocational Students..... 14
Chicago Paper Market Marks Time..... 15
Paper Salesmen's Activities 15
Writing Paper Manufacturers Meet..... 15
Shellmar Products Co. Plans Addition..... 15
Trustee Named for Iroquois..... 15
Canadian News Print Control Rejected..... 16
News Print at $45 in British Columbia 16
3 Cent Postage Hurts Fine Papers..... 16
Boston Market Rules Seasonably Quiet..... 17
Sanford Manufacturers Chartered..... 17
Wisconsin Waste Disposal Committee Meets.. 17
Paperboard Industries Association..... 18
Minisink Paper Co. to Reopen..... 18
Philadelphia Market Still Marking Time..... 19
Organizing the Wrapping Paper Trade..... 19
Construction News 22

Editorial 24
I. P.'s Third Quarter Earnings 25
Gair Plant on Five Day Schedule 25
Use More Paper 25
Oil Resisting Rubber Belting 25

Technical Section
The Design and Care of Pulp Strength Testing Equipment 29
The Characterization of Pulps and Stuff 30
Pulp and Paper Industry Literature Review.. 35
Book Paper Trade Customs 39
United Container Association's Activities..... 41
Imports of Paper and Paper Stock..... 43
New York Market Review 46
Miscellaneous Markets..... 48
Market Quotations..... 48

THE PAPER TRADE JOURNAL is indexed in Industrial Arts Index

Want and For Sale Advertisements, 52-53

"DO ONE THING AND DO IT WELL"

TAILORING . . . an art which requires specific knowledge and concentration . . . an "all-time" job, for the man who does it well • This is one example of the value of specialization; another is the manufacture of EBG Liquid Chlorine. Making this product is our work. Like the tailor, we do one thing—and do it well.

ELECTRO BLEACHING GAS CO.

Pioneer Manufacturers of Liquid Chlorine

Main Office: 9 E. 41st St., New York, N.Y. Plant: Niagara Falls, N.Y.

EBG

Look for the RED Cylinder

Liquid Chlorine